FMC Idaho LLC, Pocatello, Idaho

FMC Pocatello Post-Closure Plan

Volume 1

RCRA Pond Post-Closure Plan

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MWH

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SECTION 1.0 INTRODUCTION

1.1 PURPOSE AND SCOPE OF THIS PLAN

The purpose of the RCRA Pond Post-Closure Plan is to describe the post-closure monitoring and maintenance activities that will be performed at the RCRA Ponds located at the FMC facility in Pocatello, Idaho. Figure 1-1 shows the regional setting of the FMC Plant Site.

The scope of this post-closure plan covers post-closure activities to be performed during the RCRA Pond post-closure-care period. Post-closure care and use of the property at the RCRA Ponds will continue to be performed in accordance with 40 CFR §265.117 through §265.120. During the post-closure care period, FMC will continue to perform the post-closure monitoring activities in accordance with the applicable performance standards specified in 40 CFR §265.228 and §265.310. The RCRA Ponds covered by this post-closure plan are:

- Pond 8E
- Pond 9E
- Pond 8S
- Phase IV Ponds (Including Ponds 11S, 12S, 13S, and 14S)
- Pond 15S
- Pond 16S
- Pond 17 and
- Pond 18 Cell A

Figure 1-2 shows the location of the RCRA Ponds within the western portion of the FMC Plant Site.

Post-closure monitoring will continue for 30 years after completion of closure of each of the RCRA Ponds, unless shortened or lengthened by the Regional Administrator in accordance with 40 CFR §265.117.

FMC maintains a RCRA Facility-Wide Contingency Plan (FMC, 2010) for the facility in accordance with 40 CFR Part 265 Subpart D. FMC will update the Contingency Plan as necessary to reflect any changes in operations / conditions at the facility including any amendments to this post-closure plan pursuant to 40 CFR §265.118.

1.2 DESCRIPTION OF RCRA PONDS

A detailed description of each of the RCRA Ponds design can be found in Section 2 of their respective Closure Plans. A summary of the physical description, wastes managed, and closure at each of the RCRA Ponds is provided in the subsections below.

While the RCRA Ponds have many similarities, there are also some differences in how they were constructed, operated, and closed that warrant some differences in their associated post-closure monitoring. Most significant is the type of cover system used during pond closure. Two types of cover systems (both approved by EPA as meeting the RCRA cover system regulatory performance criteria for waste closure in-place) were used at the RCRA Ponds as described here:

1. The "RCRA engineered cap" (See Figure 1-3), consists of subgrade backfill (ranging from 6 feet to over 20 feet depending on the pond, and location within each pond) to cover the waste in order to provide a stable working base and the appropriate grade for capping, a geosynthetic clay liner (GCL) barrier, a flexible membrane liner (40-mil HDPE), a geonet drainage layer, a geofabric filter layer, and a minimum of 3.5 feet of protective cover (including 24 inches of vegetated topsoil).

2. The "RCRA double cap" (See Figure 1-4), a more robust design, consists of subgrade backfill (ranging from 6 feet to over 20 feet depending on the pond, and location within each pond) to cover the waste in order to provide a stable working base and the appropriate grade for capping, a geosynthetic clay liner (GCL) barrier, a flexible membrane liner (60-mil HDPE), a geonet drainage layer, a geofabric filter layer. These layers were then covered with an evapotranspirative (ET) cap consisting of a 1-foot sand filter layer, a 1.5-foot crushed slag layer, a 6-inch gravel filter layer, a 6-inch sand filter layer, and a 3.5-foot vegetated topsoil layer.

Comparative descriptions of the RCRA Ponds, including the type of cover system used, are presented below and in Table 1.1. Locations of these ponds are shown in Figure 1-2.

1.2.1 Pond 8S (WMU #7)

Pond 8S is tear-drop-shaped pond of 3.2 acres and original capacity of 70 acre-feet. This pond was constructed without any liner or leachate collection systems. Pond 8S was put into operation in 1970, primarily for the management of phossy water, although some precipitator slurry was also placed in the pond during the first year of operation. Pond 8S received wastes until 1993. The final waste inventory was estimated to be 44 acre-feet at closure.

Pond 8S was closed using a "RCRA double cap" (including an ET cap as described above), consistent with the *Pond 8S Closure Plan* as approved by EPA in August 1998. The cover construction was completed in October 1999, and FMC certified closure completion in December 1999. The closure certification for Pond 8S was supported by the Closure Report that contains the closure construction as-built drawings. The Closure Report and as-built drawings are on file with FMC and are available to any FMC contractor performing post closure monitoring and maintenance.

FMC filed a survey plat and a *Notice and Covenants Restricting Use of Property* with the Power County recorder's office in December 1999 as a record of the type, location, and quantity of waste placed in Pond 8S, and the property use restrictions at the closure area. FMC recorded the notice within 60 days of closure certification and sent a letter to the EPA Regional Administrator in December 1999 that provided EPA with the closure certification, and copies of the survey plat and deed notice containing the property use restrictions. The survey plat was prepared and certified by a professional land surveyor registered in the State of Idaho. The deed notice notifies in perpetuity any potential purchaser of the property that the land has been used to manage hazardous wastes, that land use is restricted under 40 C.F.R. Part 265, Subpart G regulations, and that the survey plat was filed with the Power County recorder's office. The land use restrictions include a prohibition against subsurface intrusion within the limit of the final cover and within 20 feet of the anchor trench. Contemporaneously with sending the closure certification notice letter to EPA in December 1999, FMC provided a copy of that letter to the Shoshone-Bannock Tribes. FMC also sent a letter to the Shoshone-Bannock Tribes on December 3, 2010 that provided the Tribes with copies of the closure certification, survey plat, and deed notice containing the property use restrictions.

1.2.2 Pond 8E (WMU #11)

Pond 8E, Waste Management Unit (WMU) #11, is a triangular-shaped pond of 4.1 acres and original capacity of 27 acre-feet. This pond was constructed with a 30-mil PVC double-liner system equipped with a leachate collection, detection and removal system (LCDRS) between the two liners. Pond 8E was put into operation in 1984, primarily to store and consolidate precipitator slurry prior to transfer to Pond 9E (WMU #9). The pond was eventually filled with lime-treated (NOSAP) precipitator slurry, although some residual non-lime-treated precipitator slurry and phossy solids also remained. Pond 8E last received waste in 1997 with a final waste inventory estimated to be 27 acre-feet at closure.

Pond 8E was closed using a "RCRA engineered cap" (as described above), consistent with the *Pond 8E Closure Plan* as approved by EPA in January 2003. The cover construction was completed in November 2004, and FMC certified closure completion in January 2005. The closure certification for Pond 8E was supported by the Closure Report that contains the closure construction as-built drawings. The Closure Report and as-built drawings are on file with FMC and are available to any FMC contractor performing post closure monitoring and maintenance.

FMC filed a survey plat and a *Notice and Covenants Restricting Use of Property* with the Power County recorder's office in January 2005 as a record of the type, location, and quantity of waste placed in Pond 8E, and the property use restrictions at the closure area. FMC recorded the notice within 60 days of closure certification and sent a letter to the EPA Regional Administrator in January 2005 that provided EPA with the closure certification, and copies of the survey plat and deed notice containing the property use restrictions. The survey plat was prepared and certified by a professional land surveyor registered in the State of Idaho. The deed notice notifies in perpetuity any potential purchaser of the property that the land has been used to manage hazardous wastes, that land use is restricted under 40 C.F.R. Part 265, Subpart G regulations, and that the survey plat was filed with the Power County recorder's office. The land use restrictions include a prohibition against subsurface intrusion within the limit of the final cover and within 20 feet of the anchor trench. Contemporaneously with sending the closure certification notice letter to EPA in January 2005, FMC provided a copy of that letter to the Shoshone-Bannock Tribes including copies of the closure certification, *Notice and Covenants Restricting Use of*

Property, and the survey plat. FMC also sent a letter to the Shoshone-Bannock Tribes on December 3, 2010 that again provided the Tribes with copies of the closure certification, survey plat, and deed notice containing the property use restrictions.

1.2.3 Pond 9E (WMU #9)

Pond 9E is a rectangular-shaped pond of 12.9 acres and original capacity of 70 acre-feet. This pond was constructed with a 30-mil PVC double-liner system equipped with a LCDRS between the two liners. Pond 9E was put into operation in 1986, primarily to store and consolidate precipitator slurry for solar drying. Pond 9E last received RCRA hazardous wastes in January 1994. The pond was eventually dredged of solids (to the extent practicable) and those were placed into Pond 16S (WMU #10). The residual solids (determined by FMC to be non-hazardous) were allowed to dry with a final waste inventory estimated to be 17 acre-feet at closure. In 1996, FMC began preparations to place Pond 9E into non-hazardous waste service by placing a layer of bentonite clay, two layers of geotextile fabric, and a protective layer of slag over the dried residual solids. In October 1996, EPA requested that FMC discontinue the preparation of Pond 9E for transition to non-hazardous service.

Pond 9E was closed using a "RCRA engineered cap" (as described above), consistent with the *Pond 9E Closure Plan* as approved by EPA in March 2000. The cover construction was completed in December 2000, and FMC certified closure completion in January 2001. The closure certification for Pond 9E was supported by the Closure Report that contains the closure construction as-built drawings. The Closure Report and as-built drawings are on file with FMC and are available to any FMC contractor performing post closure monitoring and maintenance.

FMC filed a survey plat and a *Notice and Covenants Restricting Use of Property* with the Power County recorder's office in January 2001 as a record of the type, location, and quantity of waste placed in Pond 9E, and the property use restrictions at the closure area. FMC recorded the notice within 60 days of closure certification and sent a letter to the EPA Regional Administrator in January 2001 that provided EPA with the closure certification, and copies of the survey plat and deed notice containing the property use restrictions. The survey plat was prepared and certified by a professional land surveyor registered in the State of Idaho. The deed notice notifies in

perpetuity any potential purchaser of the property that the land has been used to manage hazardous wastes, that land use is restricted under 40 C.F.R. Part 265, Subpart G regulations, and that the survey plat was filed with the Power County recorder's office. The land use restrictions include a prohibition against subsurface intrusion within the limit of the final cover and within 20 feet of the anchor trench. Contemporaneously with sending the closure certification notice letter to EPA in January 2005, FMC provided a copy of that letter to the Shoshone-Bannock Tribes including copies of the closure certification, *Notice and Covenants Restricting Use of Property*, and the survey plat. FMC also sent a letter to the Shoshone-Bannock Tribes on December 3, 2010 that again provided the Tribes with copies of the closure certification, survey plat, and deed notice containing the property use restrictions.

1.2.4 Phase IV Ponds (WMU #8)

The Phase IV Ponds consist of a series of four separate ponds (Ponds 11S, 12S, 13S, and 14S) of 8.9 total acres and a combined original capacity of 94 acre-feet. These ponds were constructed with a single 30-mil PVC liner and a leachate detection system that consisted of lysimeters (although this detection system is considered to be non-functional, likely due to crushed lysimeters). The Phase IV Ponds were put into operation in 1980 to receive, clarify, and recycle phossy water. Ponds 11S, 12S, and 13S were used to settle out solids from the wastewater by gravity separation. Pond 14S was primarily a surge pond for clarified water prior to recycle back to the manufacturing process. Although Ponds 11S, 12S, and 13S were periodically dredged to Pond 15S (and later Pond 16S), phossy solids containing P4 remained in these ponds at the time of closure. The Phase IV ponds last received process wastes in 1998 with a final waste inventory estimated to be 43 acre-feet at closure.

The Phase IV ponds were closed using a "RCRA double cap" (including an ET cap as described above), consistent with the *Phase IV Pond Closure Plan* as approved by EPA in March 2003. The cover construction was completed in November 2004, and FMC certified closure completion in January 2005. The closure certification for Phase IV Ponds was supported by the Closure Report that contains the closure construction as-built drawings. The Closure Report and as-built drawings are on file with FMC and are available to any FMC contractor performing post closure monitoring and maintenance.

FMC filed a survey plat and a *Notice and Covenants Restricting Use of Property* with the Power County recorder's office in January 2005 as a record of the type, location, and quantity of waste placed in the Phase IV ponds, and the property use restrictions at the closure area. FMC recorded the notice within 60 days of closure certification and sent a letter to the EPA Regional Administrator in January 2005 that provided EPA with the closure certification, and copies of the survey plat and deed notice containing the property use restrictions. The survey plat was prepared and certified by a professional land surveyor registered in the State of Idaho. The deed notice notifies in perpetuity any potential purchaser of the property that the land has been used to manage hazardous wastes, that land use is restricted under 40 C.F.R. Part 265, Subpart G regulations, and that the survey plat was filed with the Power County recorder's office. The land use restrictions include a prohibition against subsurface intrusion within the limit of the final cover and within 20 feet of the anchor trench. Contemporaneously with sending the closure certification notice letter to EPA in January 2005, FMC provided a copy of that letter to the Shoshone-Bannock Tribes including copies of the closure certification, *Notice and Covenants Restricting Use of Property*, and the survey plat. FMC also sent a letter to the Shoshone-Bannock Tribes on December 3, 2010 that again provided the Tribes with copies of the closure certification, survey plat, and deed notice containing the property use restrictions.

1.2.5 Pond 15S (WMU #3)

Pond 15S is a rectangular-shaped pond of 9.4 acres and original capacity of 140 acre-feet. This pond was constructed with a 30-mil PVC double-liner system equipped with a LCDRS between the two liners. Pond 15S was put into operation in 1982, primarily to receive wastewater from the Pond 8S P4 recovery process, phossy wastes from dredging of the Phase IV ponds, and decant water from Pond 9E. Pond 15S last received process wastes in September 1993 with a final waste inventory estimated to be 140 acre-feet at closure.

Pond 15S was closed using a "RCRA double cap" (including an ET cap as described above) consistent with the *Pond 15S Closure Plan* as approved by EPA in January 2003. The cover construction was completed in November 2004, and FMC certified closure completion in January 2005. The closure certification for Pond 15S was supported by the Closure Report that contains the closure construction as-built drawings. The Closure Report and as-built drawings

are on file with FMC and are available to any FMC contractor performing post closure monitoring and maintenance.

FMC filed a survey plat and a *Notice and Covenants Restricting Use of Property* with the Power County recorder's office in January 2005 as a record of the type, location, and quantity of waste placed in Pond 15S, and the property use restrictions at the closure area. FMC recorded the notice within 60 days of closure certification and sent a letter to the EPA Regional Administrator in January 2005 that provided EPA with the closure certification, and copies of the survey plat and deed notice containing the property use restrictions. The survey plat was prepared and certified by a professional land surveyor registered in the State of Idaho. The deed notice notifies in perpetuity any potential purchaser of the property that the land has been used to manage hazardous wastes, that land use is restricted under 40 C.F.R. Part 265, Subpart G regulations, and that the survey plat was filed with the Power County recorder's office. The land use restrictions include a prohibition against subsurface intrusion within the limit of the final cover and within 20 feet of the anchor trench. Contemporaneously with sending the closure certification notice letter to EPA in January 2005, FMC provided a copy of that letter to the Shoshone-Bannock Tribes including copies of the closure certification, *Notice and Covenants Restricting Use of Property*, and the survey plat. FMC also sent a letter to the Shoshone-Bannock Tribes on December 3, 2010 that again provided the Tribes with copies of the closure certification, survey plat, and deed notice containing the property use restrictions.

1.2.6 POND 16S (WMU # 10)

Pond 16S (WMU # 10), is a rectangular-shaped pond with a total area (including the perimeter dike) of 10.2 acres with a storage capacity of 140 acre-feet. It is doubled-lined with 30-mil PVC liners and is equipped with a leachate collection, detection, and removal system (LCDRS) between the two liners. Pond 16S ceased receiving wastes in September 1999 with a final waste inventory estimated to be 140 acre-feet at closure.

Pond 16S was put into service in 1993 and received, stored, and was the final disposition for the settleable solids from numerous waste streams, including phossy water; precipitator slurry; materials dredged from Ponds 8E and 9E; furnace building wastewater; phossy wastes (pond

solids dredged) from the Phase IV ponds; Non-Hazardous Slurry Assurance Project (NOSAP) slurry from lime treatment of precipitator slurry, including both on-specification and off-specification NOSAP slurry; decant water from other RCRA ponds; and other P4-contaminated process wastes such as spill clean-up and equipment decontamination wastes.

Pond 16S was closed using a "RCRA double cap" (including an ET cap as described above) consistent with the approved *Pond 16S Closure Plan*. The cover construction was completed in November 2004 and FMC certified closure completion in January 2005. The closure certification for Pond 16S was supported by the Closure Report that contains the closure construction as-built drawings. The Closure Report and as-built drawings are on file with FMC and are available to any FMC contractor performing post closure monitoring and maintenance.

FMC filed a survey plat and a *Notice and Covenants Restricting Use of Property* with the Power County recorder's office in January 2005 as a record of the type, location, and quantity of waste placed in Pond 16S, and the property use restrictions at the closure area. FMC recorded the notice within 60 days of closure certification and sent a letter to the EPA Regional Administrator in January 2005 that provided EPA with the closure certification, and copies of the survey plat and deed notice containing the property use restrictions. The survey plat was prepared and certified by a professional land surveyor registered in the State of Idaho. The deed notice notifies in perpetuity any potential purchaser of the property that the land has been used to manage hazardous wastes, that land use is restricted under 40 C.F.R. Part 265, Subpart G regulations, and that the survey plat was filed with the Power County recorder's office. The land use restrictions include a prohibition against subsurface intrusion within the limit of the final cover and within 20 feet of the anchor trench. Contemporaneously with sending the closure certification notice letter to EPA in January 2005, FMC provided a copy of that letter to the Shoshone-Bannock Tribes including copies of the closure certification, *Notice and Covenants Restricting Use of Property,* and the survey plat. FMC also sent a letter to the Shoshone-Bannock Tribes on December 3, 2010 that again provided the Tribes with copies of the closure certification, survey plat, and deed notice containing the property use restrictions.

1.2.7 Pond 17 (WMU #14)

Pond 17 is a rectangular-shaped pond of 9 acres and original capacity of 85 acre-feet. This pond was constructed with a 30-mil PVC double-liner system equipped with a leachate collection, detection and removal system (LCDRS) between the two liners. Pond 17 was put into operation in 1998 and received only NOSAP lime-treated precipitator slurry. Pond 17 last received waste in 2001 with a final waste inventory estimated to be 59 acre-feet at closure.

Pond 17 was closed using a "RCRA engineered cap" (as described above), consistent with the *Pond 17 Closure Plan* that EPA approved in February 2005. The cover construction was completed in November 2005, and FMC certified closure completion in December 2005. The closure certification for Pond 17 was supported by the Closure Report that contains the closure construction as-built drawings. The Closure Report and as-built drawings are on file with FMC and are available to any FMC contractor performing post closure monitoring and maintenance.

FMC filed a survey plat and a *Notice and Covenants Restricting Use of Property* with the Power County recorder's office in December 2005 as a record of the type, location, and quantity of waste placed in Pond 17, and the property use restrictions at the closure area. FMC recorded the notice within 60 days of closure certification and sent a letter to the EPA Regional Administrator in December 2005 that provided EPA with the closure certification, and copies of the survey plat and deed notice containing the property use restrictions. The survey plat was prepared and certified by a professional land surveyor registered in the State of Idaho. The deed notice notifies in perpetuity any potential purchaser of the property that the land has been used to manage hazardous wastes, that land use is restricted under 40 C.F.R. Part 265, Subpart G regulations, and that the survey plat was filed with the Power County recorder's office. The land use restrictions include a prohibition against subsurface intrusion within the limit of the final cover and within 20 feet of the anchor trench. Contemporaneously with sending the closure certification notice letter to EPA in December 2005, FMC provided a copy of that letter to the Shoshone-Bannock Tribes including copies of the closure certification, *Notice and Covenants Restricting Use of Property*, and the survey plat. FMC also sent a letter to the Shoshone-Bannock Tribes on December 3, 2010 that again provided the Tribes with copies of the closure certification, survey plat, and deed notice containing the property use restrictions.

1.2.8 Pond 18 Cell A (WMU #15)

Pond 18 Cell A is a rectangular-shaped pond of 3.8 acres and original capacity of 40 acre-feet. This pond was constructed with a 30-mil PVC double-liner system equipped with a LCDRS between the two liners. Note that Pond 18 Cell B was closed by removal of all waste materials. Pond 18 Cell A was put into operation in 1998 to receive phossy water and minor amounts of off-specification lime-treated precipitator slurry. Pond 18 Cell A last received process wastes in 2001 with a final waste inventory estimated to be 25 acre-feet at closure.

Pond 18 Cell A was closed using a "RCRA double cap" (including an ET cap as described above) consistent with the *Pond 18 Cell A Closure Plan* that EPA approved in February 2005. The cover construction was completed in November 2005, and FMC certified closure completion in December 2005. The closure certification for Pond 18 Cell A was supported by the Closure Report that contains the closure construction as-built drawings. The Closure Report and as-built drawings are on file with FMC and are available to any FMC contractor performing post closure monitoring and maintenance.

FMC filed a survey plat and a *Notice and Covenants Restricting Use of Property* with the Power County recorder's office in December 2005 as a record of the type, location, and quantity of waste placed in Pond 18 Cell A, and the property use restrictions at the closure area. FMC recorded the notice within 60 days of closure certification and sent a letter to the EPA Regional Administrator in December 2005 that provided EPA with the closure certification, and copies of the survey plat and deed notice containing the property use restrictions. The survey plat was prepared and certified by a professional land surveyor registered in the State of Idaho. The deed notice notifies in perpetuity any potential purchaser of the property that the land has been used to manage hazardous wastes, that land use is restricted under 40 C.F.R. Part 265, Subpart G regulations, and that the survey plat was filed with the Power County recorder's office. The land use restrictions include a prohibition against subsurface intrusion within the limit of the final cover and within 20 feet of the anchor trench. Contemporaneously with sending the closure certification notice letter to EPA in December 2005, FMC provided a copy of that letter to the Shoshone-Bannock Tribes including copies of the closure certification, *Notice and Covenants Restricting Use of Property,* and the survey plat. FMC also sent a letter to the Shoshone-

Bannock Tribes on December 3, 2010 that again provided the Tribes with copies of the closure certification, survey plat, and deed notice containing the property use restrictions.

1.3 POST-CLOSURE PLAN AMENDMENT

This plan will be modified as necessary to accommodate any events or changes at the facility or changes in governing regulations that could impact the RCRA Pond post-closure activities. Possible future modifications that may be needed to this post-closure plan would be accomplished in accordance with the post-closure plan amendment procedures set forth at 40 CFR §265.118.

1.4 CONTACT INFORMATION

During the post-closure period, information about post-closure activities can be obtained by contacting:

Remediation Project Director
FMC Corporation
1735 Market Street
Philadelphia, PA 19103
(215) 299-6700

1.5 DOCUMENT ORGANIZATION

The remainder of this Plan consists of:

- Section 2.0: RCRA Pond Post-Closure Activities
- Section 3.0: RCRA Pond Gas Monitoring Program <RESERVED>
- Section 4.0: Operation and Maintenance of RCRA Pond Gas Extraction and Treatment Systems <RESERVED>
- Section 5.0: Waste Management
- Section 6.0: Pond 16S Road Monitoring and Maintenance
- Section 7.0: Recordkeeping and Reporting
- Section 8.0: References

- Appendix A: RCRA Sampling and Analysis Plan
    - Appendix A1: RCRA Pond Quality Assurance Project Plan (QAPP)
    - Appendix A2: Field Sampling Plan (FSP) for RCRA Pond Groundwater Monitoring
    - Appendix A3: Field Sampling Plan (FSP) for RCRA Pond Cap Monitoring
- Appendix B: Estimation of Percolation Rates Through the RCRA "Double" Cap

SECTION 2.0 RCRA PONDS POST-CLOSURE ACTIVITIES

The purpose of this section is to specify the RCRA Ponds post-closure monitoring activities under this post-closure plan, with the exception of the phosphine (PH3) monitoring program. Phosphine monitoring and any required gas extraction and treatment is currently being conducted pursuant to the Unilateral Administrative Order for Removal Action, U.S. EPA Region 10 CERCLA Docket Number CERCLA-10-2010-0170 (UAO). The post-closure gas monitoring program will be developed in the future and will be described in the RCRA Pond Gas Monitoring Program that is reserved for Section 3.0. The requirements for any gas extraction and treatment system(s) and operation will be developed in the future and will be described in Operation and Maintenance of RCRA Pond Gas Extraction and Treatment Systems that is reserved for Section 4.0.

2.1 OVERALL POST-CLOSURE MONITORING OBJECTIVES

The Data Quality Objectives (DQOs) for the RCRA Ponds post-closure monitoring that address all post-closure monitoring activities are presented in the *FMC RCRA Quality Assurance Plan* (*QAPP*) as included in Appendix A-1 of this Plan. The following presents a discussion on the overall post-closure monitoring objectives based on the DQOs.

2.1.1 MAINTAINING THE INTEGRITY AND EFFECTIVENESS OF THE FINAL COVER

The post-closure performance standards for maintaining the integrity and effectiveness of the final cover are set forth in 40 CFR §265.228(b)(1) and §265.310(b)(1). These state that during the post-closure care period, the owner or operator must "*Maintain the integrity and effectiveness of the final cover, including making repairs to the cover as necessary to correct effects of settling, subsidence, erosion, or other events*." The following describes the post-closure actions that FMC will take to ensure that this performance standard is being met.

- Collecting sufficient data and information to determine if the pond cover system is being maintained such that the cap is capable of performing as designed, i.e., limiting infiltration of precipitation into the wastes within the pond and taking corrective action when deficiencies are noted. The specific actions to meet these objectives consist of the following:

- Surface vegetation monitoring;
- Settlement monitoring;
- Topsoil depth monitoring;
- Rodent/insect infestation monitoring;
- ET cap drainage monitoring; and
- Maintenance or repair as needed to comply with the performance standard.

2.1.2 MAINTAINING AND MONITORING THE LEAK DETECTION SYSTEM

The post-closure performance standards for maintaining and monitoring the leak detection system are set forth at 40 CFR §265.228(b)(2) and §265.310(b)(2). These regulations state that during the post-closure care period the owner or operator must "*Maintain and monitor the leak detection system … and comply with all other applicable leak detection system requirements*." The following describes the post-closure actions that FMC will take to ensure that this performance standard is being met.

- Ensuring that the LCDRS is properly maintained, including being pumped to minimize the head on the bottom liner, by collecting sufficient data and information to determine and record the amount of liquids being pumped from the system, and taking corrective action when deficiencies are noted. The specific actions to meet these objectives consist of the following:
  - Inspections of the LCDRS system;
  - Pumping from the LCDRS when liquid levels reach the invert of the inlet pipe to the LCDRS sump;
  - Measuring and recording the amount of liquid pumped from the LCDRS;
  - Performing waste determinations per 40 CFR §262.11 of the pumped leachate and ensuring its proper disposal; and
  - Maintenance or repair as needed to comply with the performance standard.

2.1.3 MAINTAINING AND MONITORING THE GROUNDWATER MONITORING SYSTEM

The post-closure performance standards for maintaining and monitoring the groundwater monitoring system are set forth at 40 CFR §265.228(b)(3) and §265.310(b)(3). These regulations state that during the post-closure care period the owner or operator must "*Maintain and monitor the groundwater monitoring system and comply with all other applicable requirements*." The following describes the post-closure actions that FMC will take to ensure that this performance standard is being met.

- Ensuring that the groundwater monitoring system is properly maintained and monitored to collect sufficient data and information to determine if there are

releases from the closed RCRA pond that are (or may be) impacting groundwater quality, and to take corrective action when deficiencies are noted. The specific actions to meet these objectives consist of the following:

- Inspections of the groundwater monitoring wells;
- Sampling and analysis of upgradient and downgradient wells;
- Performance of statistical tests on indicator constituents; and
- Maintenance or repair as needed to comply with the performance standard.

2.1.4 Prevention of Run-On and/or Run-Off Erosion or Other Damage to the Final Cover

The post-closure performance standards for prevention of final cover damage from run-on and/or run-off are set forth at 40 CFR §265.228(b)(4) and §265.310(b)(4). These regulations state that during the post-closure care period the owner or operator must "*Prevent run-on and run-off from eroding or otherwise damaging the final cover*." The following describes the post-closure actions that FMC will take to ensure that this performance standard is being met.

- Inspecting and maintaining the cap surface and stormwater/snowmelt run-off diversion structures (drainage ditches) and taking corrective action when deficiencies are noted. The specific actions to meet these objectives consist of the following:
  - Inspections of the cap surface for signs of erosion or ponding of stormwater/snowmelt;
  - Inspections of stormwater/snowmelt diversion structures for accumulation of debris or sediment; and
  - Maintenance or repair as needed to comply with the performance standard.

2.1.5 Protection and Maintenance of Benchmarks

The post-closure performance standards for protection and maintenance of benchmarks are set forth at 40 CFR §265.310(b)(5), which states that during the post-closure care period the owner or operator must "*Protect and maintain surveyed benchmarks used in complying with §265.309*." The following describes the post-closure actions that FMC will take to ensure that this performance standard is being met.

- Inspecting and maintaining the benchmarks used to survey the RCRA Ponds locations and dimensions and settlement monument movement, and taking corrective action when deficiencies are observed. The specific actions to meet these objectives consist of the following:
  - Inspections of the survey benchmark control stations "94-1" and "94-4"; and

- Maintenance or repair as needed to comply with the performance standard.

2.1.6 MAINTAINING THE SECURITY SYSTEMS

40 CFR §265.14(a) requires the owner or operator must prevent the unknowing entry, and minimize the possibility of the unauthorized entry, of persons or livestock onto the active portion of the facility. The RCRA pond area is wholly enclosed within the boundaries of the FMC plant site which has a combination of fencing around the property boundary, natural barriers and controlled entry. Access to the closed unit is and will be controlled to protect the cover, benchmarks, and monitoring systems from inadvertent access of unauthorized persons. The following describes the post-closure actions that FMC will take to ensure that this performance standard is being met.

- Inspecting and maintaining all RCRA pond security systems, including fencing, gates, and signs. Also, to take corrective action when deficiencies are noted. This overall monitoring objective is to be demonstrated through the following monitoring activities:
  - Inspections of the RCRA pond fencing, gates, and signs.
  - Maintenance or repair as needed to comply with the performance standard.

2.2 POST-CLOSURE MONITORING ACTIVITIES

The following subsections provide a description of the post-closure monitoring activities for the RCRA Ponds. DQOs for all post-closure monitoring activities are presented on Tables 1.1, 1.2, and 1.3 of the *RCRA Pond QAPP* (attached in Appendix A-1). The post-closure inspection, sampling/measurement, and maintenance activities are summarized on Table 2.1. Annual monitoring at each pond will typically be performed at approximately 12-month intervals and semiannual monitoring at each pond will typically be performed at approximately 6-month intervals.

In addition to the post-closure monitoring and maintenance activities described in this section, all FMC and FMC contractor personnel working in the RCRA Pond area will be responsible for reporting as soon as practicable to FMC any conditions that indicate an actual or potential failure to meet the requirements specified in this *Post-Closure Plan* or that are otherwise unacceptable. FMC will be responsible for promptly assessing the reported condition(s) based on the requirements of this plan and RCRA regulations, and, if determined to be required, performing

any necessary maintenance and/or repair to correct such conditions. FMC will document any such reported conditions covered by the requirements of this plan and RCRA regulations in the Operating Record. For any such condition(s) that FMC determines requires maintenance or repair pursuant to this *Post-Closure Plan*, the maintenance will be performed on a schedule and documented (summarized in the *RCRA Pond Annual Post-Closure Report*) consistent with the requirements described herein.

2.2.1 MONITORING THE INTEGRITY AND EFFECTIVENESS OF THE FINAL COVER

Post-closure monitoring of the final cover integrity and effectiveness involves the activities discussed below.

2.2.1.1 Surface Vegetation Monitoring

The objective of the RCRA cap vegetation monitoring is to inspect the vegetation cover on the cap surface to ensure that significant areas as defined below do not become void of vegetation. The DQOs for surface vegetation monitoring are presented in Table 1.1 of the *RCRA Pond QAPP* (see Appendix A-1 of this *Post-Closure Plan*). Procedures for the vegetation monitoring field activities are presented in Section 4.3.1 of the *FSP for RCRA Cap Integrity Monitoring* (included in Appendix A-3 of this *Post-Closure Plan*). The cap vegetation monitoring results will be summarized in the annual *RCRA Pond Annual Post-Closure Report*.

Inspections: Each RCRA Pond cap surface will be visually inspected annually at the end of the growing season (typically in September or October and just prior to re-seeding if needed) to determine if vegetation (plant) density remains adequate, using the methodology described below. Any areas of the pond cap that require attention or re-vegetation will be noted on inspection and maintenance forms. Inspection records will be maintained in the Operating Record on-site as described in Section 7.3.

Sampling and/or Measurements: The program for inspecting vegetation at the surface of the RCRA Ponds is described below. It is based on and consistent with the *Guidelines for Determining Stand Establishment on Pasture, Range and Conservation Seedings* (USDA, January 2008). The program consists of the following procedures:

1. Walk across the pond cap surface from one side to the opposite side and appraise the variability of the vegetation. On the way back, sample representative areas ("plots") of the cap surface using a pace transect. A square frame will be used to count plants within

each plot. The frame should be placed so all four sides touch the ground surface (e.g., do not set the plot frame edge directly on top of bunch grass or sage brush).

2. Record the number of three-leaved (or more) plants (e.g., grasses, shrubs) in a 9 square foot plot (i.e., within a 3-foot square frame placed on the ground); walk an appropriate number of paces such that the ten sampling plots will be uniformly spaced across the transect (e.g., ten paces [about 30 feet] between each plot for a 330 foot transect) and record again; repeat counting plots until 10 stops have been made. Divide the total number of plants counted by 9 to calculate the number of plants per square foot at each plot / sample (i.e., calculate plant density for each individual 9 square foot plot).

3. Complete three transects and 10-stop plots / samples per transect. Transects will be evenly spaced across the cap surface (e.g., one across the eastern third, one across the center and one across the western third of Pond 15S) but will also be randomly selected for each monitoring event. Due to the pond cap road on Pond 16S, if a plot / sample lands on the cap road, the plot will be moved adjacent to the road prior to counting plants, then continue pacing to next plots / samples.

4. When complete, the plant density will have been counted at and calculated for each of the 30 individual plots. If two-thirds (20 of 30) of the plot samples or more from the 30 total samples from the three transects and 10 samples per transect meet or exceed the minimum target density of 0.5 plants per square foot, then maintenance is not required.

Maintenance Activities: If less than two-thirds of the total 30 samples meet or exceed the target density of 0.5 plants per square foot, then the cap vegetation will require maintenance. This will involve reseeding the areas of poor coverage based on specific transect / plot locations that were below the target density using the vegetation seed mix specified in Table 2.2. Reseeding will be performed in the fall (typically in October). In areas where reseeding does not result in established vegetation on areas with continued erosion problems, primarily on the steeper external pond cap slopes, erosion mats may be placed to help establish vegetation and minimize erosion.

In the event that the vegetation coverage fails to meet the performance standard (two-thirds of the plot samples (67%) or more from the aggregate three transects and 10 samples per transect [30 total samples] meet or exceed the minimum target density of 0.5 plants per square foot) for two (2) consecutive years following the first reseeding performed due to a failure to meet the performance standard, FMC will prepare a plan including a schedule for an investigation to determine the cause and recommended actions to reestablish a vegetation cover that meets the performance standard. The plan and schedule will be submitted to the EPA RCRA Project Manager prior to implementation of the investigation. All necessary repairs will be performed by FMC. Documentation of the reseeding activities will be maintained in the Operating Record on-site as described in Section 7.3.

2.2.1.2 Settlement Monitoring

The objective of the cap settlement monitoring program is to determine if excessive settlement or movement of pond cap materials of construction is taking place. The DQOs for settlement monitoring are presented in Table 1.1 of the *RCRA Pond QAPP* (see Appendix A-1 of this *Post-Closure* Plan).

Procedures for the cap settlement monitoring activities are presented in Section 4.3.2 of the *FSP for RCRA Cap Integrity Monitoring* (included in Appendix A-3 of this *Post-Closure Plan*). The cap settlement monitoring results will be summarized in the annual *RCRA Pond Annual Post-Closure Report*. This monitoring program consists of the following elements:

Inspections: Each of the settlement monuments on the RCRA Pond cap surfaces will be visually inspected to determine if the settlement monuments are clear, accessible, and undamaged during the displacement measurement surveys described below. Any issues requiring attention or maintenance on the cap settlement monuments are to be noted on inspection and maintenance forms. Inspection records will be maintained in the Operating Record on-site as described in Section 7.3.

Sampling and/or Measurements: To monitor final cover settlement on the RCRA Pond caps, the elevation and coordinates of each settlement monument will be surveyed to determine the vertical and horizontal components of the final cover monuments. For accuracy, a surveying instrument will be used to take measurements with the following tolerances:

- Elevation readings: 0.01 foot
- Horizontal displacement: 0.1 foot

Elevation and displacement measurements will be plotted cumulatively versus time. The time scale will be in logarithm of time or square root of time. The settlement curve will be kept up to date with each reading. The displacement measurements (vertical and horizontal movements) will be made annually during the remaining post-closure period or until the total cumulative movements for the previous five years are less than the following limits:

- Vertical settlement: 0.03 foot
- Horizontal movement: 0.2 foot

Displacement measurements will be made (1) annually and then every five years during the post-closure period after the above limits are reached; (2) if visible subsidence is noted during semiannual run-on and/or run-off erosion monitoring or other monitoring and/or maintenance; and (3) after local seismic events. The criteria for visible subsidence requiring settlement

monitoring has been established as an area of 100 square feet (a 10 foot by 10 foot or 11 foot diameter area) or greater where precipitation ponding is observed or could occur to a depth of 1 inch of water or greater. A triggering seismic event is defined as an event that (1) exceeds a magnitude 5.0 on the Richter Scale with an epicenter within a 20-mile radius as reported by USGS or (2) exceeds a magnitude 6.0 on the Richter Scale with an epicenter within a 50-mile radius as reported by USGS. Settlement monitoring will be based on control stations "94-1" and "94-4," which are local stations in FMC's survey control system. The coordinates for these stations were derived from the U.S. Coast & Geodetic Survey (US C&GS) Control Station MCDOUGAL-2 and BM Y-96. The vertical datum is based on the 1968 adjustment of the National Geodetic Vertical Datum of 1929 (NGVD 29) by the US C&GS.

Maintenance Activities: Any maintenance necessary to clear access to or repair settlement monuments will be performed as soon as practicable so as not to cause any delay for the next scheduled monitoring event.

Any repairs or maintenance of the final cover necessary due to observed visible subsidence will be performed as soon as practicable so as not to cause any localized ponding of precipitation on the cap surface or if the subsidence was identified due to observed localized ponding of precipitation on the cap surface so as to eliminate the potential for future ponding of precipitation on the cap surface. An area of 100 square feet (a 10 foot by 10 foot or 11 foot diameter area) or greater where precipitation ponding is observed or could occur to a depth of 1 inch of water or greater will require maintenance as soon as practicable. Repairs and/or maintenance to eliminate or prevent potential ponding on the cap surface will commence within seven (7) days unless delayed as specified below. Commencement of repairs and/or maintenance includes actual field work (for simple or minor maintenance) and initiation of engineering, planning and/or procurement of additional materials to perform the maintenance and/or repairs (for more complex or larger scale maintenance). Maintenance or repairs will not be performed if frozen soil / snow cover / muddy conditions exist such that cap surface could be damaged as a result of gaining access to implement the repair/maintenance activity or are not feasible due to frozen soil conditions (typically between November 15 through April 15) at the RCRA pond where maintenance/repairs are required. If maintenance or repairs are delayed by surface conditions, any repairs or maintenance will commence within seven (7) days of the presence of acceptable cap surface conditions. In the event maintenance or repairs must be delayed beyond commencement within seven (7) days for cause(s) other than frozen soil / snow cover / muddy conditions, FMC will notify EPA within 48 hours of the observation of a condition for which the maintenance/repair will be delayed. The notification will include a description of the reason(s) for the necessary delay and a schedule for commencing the maintenance and/or repairs.

All repairs to the final cover will be conducted in accordance with the final cover construction specifications, and all testing and inspections will be conducted in accordance with the final cover *Construction Quality Assurance* (CQA) *Plan* attached to the each of the RCRA Pond Closure Plans. All necessary repairs will be performed by FMC. Documentation of all repairs and maintenance activities will be maintained in the Operating Record on-site as described in Section 7.3.

2.2.1.3 Topsoil Depth Monitoring

The objective of the cap topsoil depth monitoring program is to determine if wind and/or water erosion has removed or re-distributed topsoil to the extent that the ET cap design capabilities are diminished. The DQOs for topsoil depth monitoring are presented in Table 1.1 of the *RCRA Pond QAPP* (see Appendix A-1 of this *Post-Closure Plan*). Topsoil depth monitoring will be performed on the cap surface for those RCRA Ponds with the RCRA "double cap."

Procedures for the cap topsoil depth monitoring activities are presented in Section 4.3.3 of the *FSP for RCRA Cap Integrity Monitoring* (included in Appendix A-3 of this *Post-Closure Plan*). The cap topsoil depth monitoring results will be summarized in the annual *RCRA Pond Annual Post-Closure Report*. This monitoring program consists of the following elements:

Inspections: Each of the topsoil depth indicators on the RCRA Ponds with a "double cap" surface will be visually inspected semi-annually to determine if the topsoil depth indicators are clear, accessible, and undamaged. Any issues requiring attention or maintenance on the topsoil depth indicators are to be noted on inspection and maintenance forms. Inspection records will be maintained in the Operating Record on-site as described in Section 7.3.

Sampling and/or Measurements: Topsoil depth on the RCRA Ponds with the RCRA "double cap" will be measured (1) semi-annually and (2) within 48 hours of a high wind event. A high wind event is defined as a calendar day during which the sustained (1-minute averaging time) maximum wind speed exceeds 70 miles per hour as recorded at the Pocatello airport weather station. Wind speeds in excess of 70 miles per hour have been recorded at the Pocatello airport only in March. Thus a triggering wind event would most likely occur in March, when the soil is still frozen and snow accumulation may prevent access to all of the topsoil thickness gauges. In the event some or all of the topsoil thickness gauges are not accessible, the high wind event topsoil depth monitoring will be performed within 48 hours of meteorological conditions that would make all of the gauges accessible. To monitor topsoil depth on the RCRA Ponds with the RCRA "double cap," the distance from the surface of the topsoil to the inscribed reference line on each topsoil depth indicator will be measured and recorded. Topsoil loss at each indicator will be determined as the difference between the installed topsoil level (the original level as indicated on the form) and the current topsoil level (as measured).

Maintenance Activities: Any maintenance necessary to clear access to or repair topsoil depth indicators will be performed as soon as practicable so as not to cause any delay for the next scheduled monitoring event.

If the topsoil measurement shows 5 inches of loss below the installed thickness at 50-percent of the indicators on the RCRA Ponds with the RCRA "double caps" cap, the total cap area will be

evaluated within 30 days. The entire pond cap surface will be surveyed to prepare a current cap surface elevation contour map. The current surface elevations will be compared to the final as-built final cap elevations documented in the respective Pond Closure Reports. If more than 50-percent of the cap surface shows 5 inches of loss below the as-built surface, maintenance (e.g., replacement of topsoil and reseeding) will be performed as soon as practicable. Topsoil replacement will not be performed if frozen soil / snow cover / highly muddy conditions exist (typically between November 15 through April 15) at the RCRA pond where topsoil replacement is required, but, if delayed by surface conditions topsoil replacement will commence within seven (7) days of the presence of acceptable cap surface conditions. Commencement of repairs and/or maintenance includes actual field work (for simple or minor maintenance) and initiation of engineering, planning and/or procurement of additional materials to perform the maintenance and/or repairs (for more complex or larger scale maintenance). As stated in Section 2.2.1.1, any reseeding required following topsoil replacement will be performed in the fall (typically in October). All necessary repairs will be performed by FMC. Documentation of all repairs and maintenance activities will be maintained in the Operating Record on-site as described in Section 7.3. All repairs to the final cover will be conducted in accordance with the procedures specified in the final cover construction specifications, and all testing and inspections will be conducted in accordance with the final cover *CQA Plan* attached to the RCRA Pond Closure Plans.

2.2.1.4 Rodent/Insect Infestation Monitoring

The objective of the RCRA cap rodent/insect infestation monitoring program is to inspect the RCRA cap surface to identify evidence of rodent burrowing or loss of vegetation from rodent or insect feeding. The DQOs for rodent/insect infestation monitoring are presented in Table 1.1 of the *RCRA Pond QAPP* (see Appendix A-1 of this *Post-Closure* Plan).

Procedures for the cap rodent/insect infestation monitoring activities are presented in Section 4.3.4 of the *FSP for RCRA Cap Integrity Monitoring* (included in Appendix A-3 of this *Post-Closure Plan*). The cap rodent/insect infestation monitoring results will be summarized in the annual *RCRA Pond Annual Post-Closure Report*. This monitoring program consists of the following elements:

Inspections: The RCRA Pond caps will be visually inspected semi-annually for evidence of rodent burrowing or loss of vegetation as result of rodent/insect feeding that, in the judgment of the inspector, could reasonably be expected to result in vegetation coverage below the target density per surface vegetation monitoring (per section 2.2.1.1) or excessive soil erosion per run-off erosion monitoring (per section 2.2.4) that could compromise the integrity and functionality of the cap system. Any issues requiring attention or maintenance are to be noted on inspection and maintenance forms. Inspection records will be maintained in the Operating Record on-site as described in Section 7.3.

Sampling and/or Measurements: This is a qualitative, rather than quantitative assessment, i.e., no routine sampling, measurement or analysis is performed as part of this monitoring.

Maintenance Activities: Any required maintenance noted during the inspection of the RCRA Ponds cap surface, for example to fill holes or burrows or correct the loss of vegetation, will be performed as soon as practicable. Maintenance to fill holes or burrows will not be performed if frozen soil / snow cover / highly muddy conditions exist (typically between November 15 through April 15) at the RCRA pond where the maintenance is required, but, if delayed by surface conditions filling holes / burrows will commence within seven (7) days of the presence of acceptable cap surface conditions. Localized reseeding may be performed during spring (typically March through May) but if reseeding is required pursuant to Section 2.2.1.1, reseeding will be performed in the fall (typically in October). Burrowing or insect activity may also warrant the use of pesticides to eradicate the pest. Documentation of all repairs and maintenance activities will be maintained in the Operating Record on-site as described in Section 7.3.

2.2.1.5 ET Cap Drainage Monitoring

The objective of the ET drainage monitoring program is to determine and record the annual volume of water accumulated from the ET cap drainage layer at the RCRA Ponds with the RCRA "double cap." The DQOs for ET cap drainage monitoring are presented in Table 1.1 of the *RCRA Pond QAPP* (see Appendix A-1 of this *Post-Closure* Plan). There are either one or two ET cap drainage collection sumps on each of the RCRA Ponds with the RCRA "double cap."

Procedures for the ET cap drainage monitoring activities (including waste determinations) are presented in Section 4.3.5 of the *FSP for RCRA Cap Integrity Monitoring* (included in Appendix A-3 of this *Post-Closure Plan*). The ET cap drainage monitoring results will be summarized in the annual *RCRA Pond Annual Post-Closure Report*. Cap drainage monitoring will continue until such time as a demonstration can be made for reduced frequency. In that event, FMC would request EPA approval to reduce the period for this post-closure monitoring in accordance with 40 CFR §265.118(g). Any reduction in frequency must be approved by EPA. The ET cap drainage monitoring program consists of the following:

Inspections: The one or two ET cap drainage collection sumps at each of the RCRA Ponds with the RCRA "double cap" will be visually inspected annually to: (1) determine if the manhole cover is in place and undamaged, (2) determine if the collection sumps are undamaged, and (3) measure the water level in the collection sump receiver tank to determine the volume of any

seepage through the ET cap. If present, inspect the instrument panel[1] to determine if the panel is intact and the door is secure. Any issues requiring attention or maintenance on the ET cap drainage collection system are to be noted on inspection and maintenance forms. Inspection records will be maintained in the Operating Record on-site as described in Section 7.3.

Sampling and/or Measurements: The steps that will be followed to evaluate the performance of the ET caps are shown in Figure 2-1, and are described below:

1. The measured annual seepage rate, which represents the percolation at the drainage layer at the bottom of the capillary barrier, will be compared to the maximum annual percolation of 10^{-4} in/yr predicted by the UNSAT-H model for the simulated 600-year period for each of the RCRA Ponds with the RCRA "double cap." The following are the maximum annual predicted percolation rates through the ET cap layers (see Appendix B for the output of the UNSAT-H and HELP models) for each of the RCRA Ponds with the RCRA "double cap:"

RCRA Pond	Maximum Annual Percolation Rate (gallons)
Pond 8S	13
Phase IV Ponds	13 for each individual pond
Pond 15S	30
Pond 16S	30
Pond 18 Cell A	15

2. If the measured seepage rate is less than the maximum annual predicted seepage rate, the performance of the cap will be deemed satisfactory. Annual drainage monitoring will continue.
3. If the measured seepage rate exceeds the maximum annual predicted seepage rate, the following actions will be taken:
    a. Check to determine if the drainage system is working properly, including but not limited to whether precipitation/water other than cap drainage through the ET cap is getting into the collection sump, for example between the manhole section joints or pipe penetrations through the manhole wall. Take corrective actions as necessary to repair the drainage system component(s).
    b. If the drainage system is working properly and the accumulated water is determined to be infiltrating through the ET capillary barrier, then the ET cap will be re-evaluated based on the recorded daily rainfall and temperature data for that year using the UNSAT-H model, thus creating a revised maximum annual predicted seepage rate.

[1] "Instrument panel" is a generalized term for the steel enclosures that house (1) pressure and temperature data displays / recording modules, (2) pressure and temperature system audible / visual alarms if separate from the data display housing and (3) power supply / switches. The monitoring described in this Section 2.2.1.5, ET Cap Drainage Monitoring only applies to the "instrument panels" associated with the ET cap drainage monitoring lift stations. Any other "instrument panels" at the RCRA ponds are addressed under the monitoring for the system with which they are associated (e.g., LCDRS sumps).

4. If the measured seepage rate exceeds the revised maximum annual predicted seepage rate, FMC will inspect the ET cap for specific cause or damage. If the specific cause or damage is found, the cap will be repaired as described below under Maintenance.

   If a specific cause or damage is not found, the cap design and construction will be re-evaluated and the capillary barrier portion of the cap will be re-designed as required to ensure the performance of the ET layer component of the cap meets the performance standards specified in the closure plan. FMC will notify EPA RCRA Project Manager within seven (7) days of any determination that FMC will perform a re-evaluation and re-design of the capillary barrier portion of the cap. FMC will submit the re-design and plan for construction of any modifications to EPA for approval within 30 days of EPA notification or as otherwise agreed to by EPA. The required modifications to the capillary barrier will be constructed during the next construction season in accordance with the plan as approved or modified by EPA, while taking care not to damage the underlying low-permeability composite cap layer.

Maintenance Activities: Any maintenance shown to be necessary based on inspection of the ET cap drainage system will be performed as soon as practicable. Repairs and/or maintenance to correct identified damage or cause (of excess infiltration) will commence within seven (7) days unless delayed as specified below. Commencement of repairs and/or maintenance includes actual field work (for simple or minor maintenance) and initiation of engineering, planning and/or procurement of additional materials to perform the maintenance and/or repairs (for more complex or larger scale maintenance). Maintenance or repairs will not be performed if frozen soil / snow cover / muddy conditions exist such that cap surface could be damaged as a result of gaining access to implement the repair/maintenance activity or are not feasible due to frozen soil conditions (typically between November 15 through April 15) at the RCRA pond where maintenance/repairs are required. If maintenance or repairs are delayed by surface conditions, any repairs or maintenance will commence within seven (7) days of the presence of acceptable cap surface conditions. In the event maintenance or repairs must be delayed beyond commencement within seven (7) days for cause(s) other than frozen soil / snow cover / muddy conditions, FMC will notify EPA within 48 hours of the observation of a condition for which the maintenance/repair will be delayed. The notification will include a description of the reason(s) for the necessary delay and a schedule for commencing the maintenance and/or repairs.

If the water level in the ET cap drainage sump receiver tank is >3/4 full, pump the tank and then re-measure and record the water level for comparison to the next monitoring event. Maintenance activities in response to an excess accumulation of ET cap drainage will be performed as described above. All necessary repairs will be performed by FMC. Documentation of all repairs and maintenance activities will be maintained in the Operating Record on-site as described in Section 7.3. All repairs to the final cover will be conducted in accordance with the final cover construction specifications, and all testing and inspections will be conducted in accordance with the final cover *CQA Plan* attached to the RCRA Pond Closure Plans.

2.2.2 MONITORING THE LCDRS

The objective of the LCDRS monitoring program is to determine and record the volume and rate of leachate collected at the RCRA Ponds that have a functional LCDRS. The RCRA Ponds with functional LCDRS are equipped with one to six leachate collection sumps. The DQOs for LCDRS monitoring are presented in Table 1.2 of the RCRA Pond QAPP (see Appendix A-1 of this Post-Closure Plan). To meet the LCDRS monitoring objective, these LCDRS sump inspections will be performed on a progressive step-wise schedule per the requirements of 40 CFR § 268.226(b)(2) and as discussed below.

Procedures for the LCDRS monitoring activities (including waste determination) are presented in Section 4.4 of the *FSP for RCRA Cap Integrity Monitoring* (included in Appendix A-3 of this *Post-Closure Plan*). The LCDRS monitoring results will be summarized in the annual *RCRA Pond Annual Post-Closure Report*. This monitoring program consists of the following elements:

Inspections: The LCDRS collection sumps at the RCRA Ponds that have functional LCDRSs will be visually inspected to determine if 1) the manhole cover is in place and undamaged, 2) the collection sumps are undamaged, and 3) liquids are present in the LCDRS sump above the invert of the inlet pipe to the sump. If present, inspect the LCDRS collection sump instrument panel[2] to determine if the panel is intact and the door is secure. These inspections will be performed on a progressive step-wise schedule per the requirements of 40 CFR §268.226(b)(2), i.e., inspections initially will be performed monthly. If no liquids are present above the invert of the inlet pipe to the sump (i.e., there is no accumulation) for two consecutive months, inspections will change to quarterly. If no liquid accumulation is present for two consecutive quarters, inspections will change to semi-annually and will remain at semi-annually until such time as accumulation of liquid is observed. If liquid accumulation is observed, (i.e., liquids are present above the invert of the inlet pipe to the sump), then inspections will revert to monthly and the progressive step-wise schedule will start over. Any issues requiring attention or maintenance on the LCDRS are to be noted on inspection and maintenance forms. Inspection records will be maintained in the Operating Record on-site as described in Section 7.3.

Sampling and/or Measurements: If liquid is present above the pipe invert, the LCDRS will be pumped and the volume of water pumped will be measured and recorded on inspection and

[2] "Instrument panel" is a generalized term for the steel enclosures that house (1) pressure and temperature data displays / recording modules, (2) pressure and temperature system audible / visual alarms if separate from the data display housing and (3) power supply / switches. The monitoring described in this Section 2.2.2 only applies to the "instrument panels" associated with the LCDRS collection sumps. Any other "instrument panels" at the RCRA ponds are addressed under the monitoring for the system with which they are associated (e.g., ET cap drainage lift stations).

maintenance forms. Other than waste determination of the accumulated leachate (to be sampled and analyzed for pH and TCLP metals periodically to ensure its proper disposal), no routine sampling and analysis are performed as part of this monitoring. The procedure for waste determination of the leachate is presented in Section 5.0 of this Plan and in Section 4.4.1 of the *FSP*. At the time of the LCDRS system inspection, if accumulation of leachate is above the invert of the inlet pipe to the sump, the accumulated leachate will be pumped out of the sump. If the leachate is pumped, inspections of the leachate accumulation will revert to monthly as described above. Leachate will be disposed in accordance with the waste management procedures in Section 5.0 of this Plan. The volume of leachate pumped from each LCDRS sump will be measured and recorded on the inspection form.

Maintenance Activities: Any maintenance shown to be required during the inspection of the LCDRS will be performed as soon as practicable. Repairs and/or maintenance of the manhole covers, sumps and pump (for Pond 18 Cell A dedicated pump only) will commence within seven (7) days unless delayed as specified below. Commencement of repairs and/or maintenance includes actual field work (for simple or minor maintenance) and initiation of engineering, planning and/or procurement of additional materials to perform the maintenance and/or repairs (for more complex or larger scale maintenance). Maintenance or repairs will not be performed if frozen soil / snow cover / muddy conditions exist such that cap surface could be damaged as a result of gaining access to implement the repair/maintenance activity or are not feasible due to frozen soil conditions (typically between November 15 through April 15) at the RCRA pond where maintenance/repairs are required. If maintenance or repairs are delayed by surface conditions, any repairs or maintenance will commence within seven (7) days of the presence of acceptable cap surface conditions. In the event maintenance or repairs must be delayed beyond commencement within seven (7) days for cause(s) other than frozen soil / snow cover / muddy conditions, FMC will notify EPA within 48 hours of the observation of a condition for which the maintenance/repair will be delayed. The notification will include a description of the reason(s) for the necessary delay and a schedule for commencing the maintenance and/or repairs. All necessary repairs will be performed by FMC. Documentation of all repairs and maintenance activities will be maintained in the Operating Record on-site as described in Section 7.3. All repairs to the final cover will be conducted in accordance with the final cover construction specifications, and all testing and inspections will be conducted in accordance with the final cover *CQA Plan* attached to the RCRA Pond Closure Plans.

2.2.3 MONITORING THE GROUNDWATER MONITORING SYSTEM

The objective of the RCRA Ponds groundwater assessment monitoring is to collect groundwater data to monitor the potential impact of each of the RCRA Ponds on the underlying, uppermost aquifer. The DQOs for groundwater monitoring are presented in Table 1.2 of the *RCRA Pond QAPP* (see Appendix A-1 of this *Post-Closure* Plan). Each of the RCRA Ponds have a minimum of one upgradient well and three downgradient wells as part of the RCRA groundwater monitoring system. Figure 1-2 shows the location of the RCRA pond monitoring well network. To meet the groundwater monitoring objective, these wells will be monitored, sampled, and analyzed

quarterly.

Groundwater monitoring was conducted while these ponds were in operation and has been part of post-closure monitoring at each of the RCRA Ponds since certification of final closure.

Procedures for the RCRA Ponds groundwater monitoring activities are presented in the *FSP for RCRA Groundwater Monitoring* (included in Appendix A-2 of the *Post-Closure Plan*). The groundwater monitoring results will be reported in the annual *RCRA Interim Status Groundwater Monitoring Assessment Report*. The groundwater assessment monitoring consists of the following:

Inspections: The RCRA groundwater monitoring wells for each of the RCRA Ponds will be visually inspected semiannually to determine if (1) the well covers are in place, undamaged, and locked and (2) barriers are in place to protect the wellhead from incidental damage. Any issues requiring attention or maintenance on the RCRA Ponds groundwater monitoring wells will be to be noted on inspection and maintenance forms. Inspection records will be maintained in the Operating Record on-site as described in Section 7.3.

Sampling and/or Measurements: Groundwater from the upgradient and downgradient RCRA monitoring wells designated for each RCRA Pond will be sampled and analyzed on a quarterly basis to provide data regarding groundwater quality beneath and in the vicinity of the pond during the post-closure period. The upgradient and downgradient groundwater monitoring wells will be sampled for the following parameters:

- Metals: arsenic and selenium.
- Water quality: chloride, fluoride, potassium, nitrate, sulfate, and total phosphorus on all RCRA Pond wells, and elemental phosphorus will be analyzed semi-annually for the Pond 8S monitoring well network only. The RCRA Pond wells will also be sampled and analyzed for ammonia every five years during the second quarter monitoring event, beginning with the second quarter 2012 [2Q12] monitoring event.
- Field parameters: pH, turbidity, temperature, water level (groundwater elevation), and specific conductance.

The groundwater monitoring program will continue throughout the entire post-closure period of 30 years, unless shortened or lengthened by the EPA Regional Administrator in accordance with 40 CFR §265.117.

Maintenance Activities: Any maintenance shown to be necessary based on the inspection of the groundwater monitoring wells will be performed as soon as practicable and within a timeframe

that will not delay the next scheduled monitoring event. All necessary repairs will be performed by FMC. Documentation of all repairs or maintenance activities will be maintained in the Operating Record on-site as described in Section 7.3.

2.2.4 MONITORING RUN-ON AND/OR RUN-OFF EROSION

The objective of the RCRA Ponds cap run-on and/or run-off erosion monitoring program is to determine if water erosion from run-on or run-off has removed or re-distributed topsoil to the extent that the final cap capabilities may be impaired. The DQOs for run-on/run-off erosion monitoring are presented in Table 1.3 of the *RCRA Pond QAPP* (see Appendix A-1 of this *Post-Closure* Plan). Due to the way that the RCRA Pond caps are constructed, there is no chance of run-on (i.e., the cap is higher than all surrounding land). Therefore, this monitoring is limited to impacts of run-off.

Procedures for the RCRA Ponds cap run-off erosion monitoring activities are presented in Section 4.5 of the *FSP for RCRA Cap Integrity Monitoring* (included in Appendix A-3 of this *Post-Closure Plan*). The cap topsoil erosion monitoring results will be summarized in the annual *RCRA Pond Annual Post-Closure Report*. This monitoring program consists of the following elements:

Inspections: The RCRA Pond caps will be visually inspected (1) semi-annually, (2) within 48 hours of a 25-year, 24-hour storm event defined as 2.1 inches (or more) of precipitation within a 24 hour period (NOAA, 1973) as reported for the Pocatello airport weather station, and (3) within 48 hours of a rain on snow or frozen soil event of 1.0 inch (or more) of rain precipitation within a 24-hour period as reported for the Pocatello airport weather station during the period November 15 through April 15. The objective of these visual inspections will be to determine if cap surface erosion or ponding has occurred. The criteria for localized erosion or ponding requiring maintenance has been established as an area of 100 square feet (a 10 foot by 10 foot or 11 foot diameter area) or greater where precipitation ponding is observed or could occur to a depth of 1 inch of water or greater. Diversion and drainage structures will also be inspected for damage and accumulation of debris or sediment. Damage that could impair the functionality of the diversion and drainage structures will be noted and described. Any issues requiring maintenance are to be noted on inspection and maintenance forms. Inspection records will be maintained in the Operating Record on-site as described in Section 7.3.

In addition, the RCRA Pond caps will be visually inspected within 48 hours of a high wind event. A high wind event is defined as a calendar day during which the sustained (1-minute averaging time) maximum wind speed exceeds 70 miles per hour as recorded at the Pocatello airport weather station. Wind speeds in excess of 70 miles per hour have historically been

recorded at the Pocatello airport only in March. Thus, a triggering wind event would most likely occur in March, when the soil is still frozen and snow accumulation may prevent access to all or areas of the cap surface and/or diversion and drainage structures. In the event some or all areas of the cap surface and/or diversion and drainage structures are not accessible, the high wind event monitoring will be performed within 48 hours of meteorological conditions that would make all areas of the cap surface and diversion and drainage structures accessible. The objective of the high wind event visual inspection will be to determine if cap surface erosion and / or accumulation of debris or sediment in the diversion and drainage structures has occurred. Damage that could impair the functionality of the diversion and drainage structures will be noted and described. Any issues requiring maintenance are to be noted on inspection and maintenance forms. Inspection records will be maintained in the Operating Record on-site as described in Section 7.3.

Sampling and/or Measurements: This is a qualitative, rather than quantitative assessment, i.e., no routine sampling, measurement or analysis is performed as part of this monitoring.

Maintenance Activities: Any maintenance shown to be required based on inspection of the RCRA Ponds cap surface and diversion structures will be performed as soon as practicable. Maintenance or repairs to the diversion and drainage structures that could impair the functionality of the diversion and drainage structures and maintenance and/or repairs to eliminate or prevent potential ponding on the cap surface will commence within seven (7) days unless delayed as specified below. Commencement of repairs and/or maintenance includes actual field work (for simple or minor maintenance) and initiation of engineering, planning and/or procurement of additional materials to perform the maintenance and/or repairs (for more complex or larger scale maintenance). Maintenance or repairs will not be performed if frozen soil / snow cover / muddy conditions exist such that cap surface could be damaged as a result of gaining access to implement the repair/maintenance activity or are not feasible due to frozen soil conditions (typically between November 15 through April 15) at the RCRA pond where maintenance/repairs are required. If maintenance or repairs are delayed by surface conditions, any repairs or maintenance will commence within seven (7) days of the presence of acceptable cap surface conditions. In the event maintenance or repairs must be delayed beyond commencement within seven (7) days for cause(s) other than frozen soil / snow cover / muddy conditions, FMC will notify EPA within 48 hours of the observation of a condition for which the maintenance/repair will be delayed. The notification will include a description of the reason(s) for the necessary delay and a schedule for commencing the maintenance and/or repairs. All necessary repairs will be performed by FMC. Documentation of all repairs or maintenance activities will be maintained in the Operating Record on-site as described in Section 7.3. All repairs to the final cover will be conducted in accordance with the final cover construction specifications, and all testing and inspections will be conducted in accordance with the final cover *CQA Plan* attached to the RCRA Pond Closure Plans.

2.2.5 MONITORING SURVEY BENCHMARKS

The objective of the survey benchmark monitoring program is to ensure that the survey benchmarks used to determine the exact location and dimensions of the RCRA Ponds and to perform

the settlement monitoring are properly protected and maintained. The DQOs for survey benchmark monitoring are presented in Table 1.3 of the *RCRA Pond QAPP* (see Appendix A-1 of this *Post-Closure* Plan). Survey benchmarks for the RCRA Ponds include control stations "94-1" and "94-4."

The procedures for the survey benchmark monitoring are presented in Section 4.6 of the *FSP for RCRA Cap Integrity Monitoring* (included in Appendix A-3 of this *Post-Closure Plan*). The survey benchmark monitoring results will be summarized in the annual *RCRA Pond Annual Post-Closure Report*. This monitoring program consists of the following elements:

Inspections: Each of the survey benchmarks associated with the RCRA Ponds will be visually inspected annually to determine if the benchmarks are clear, accessible, and undamaged. Any issues requiring attention or maintenance on the survey benchmarks are to be noted on inspection and maintenance forms. Inspection records will be maintained in the Operating Record on-site as described in Section 7.3.

Sampling and/or Measurements: This is a qualitative, rather than quantitative assessment, i.e., no routine sampling, measurement or analysis is performed as part of this monitoring.

Maintenance Activities: Any maintenance shown to be required based on inspection of the survey benchmarks will be performed as soon as practicable and within a timeframe that will not delay the next scheduled monitoring event. All necessary repairs will be performed by FMC. Documentation of all repairs or maintenance activities will be maintained in the Operating Record on-site as described in Section 7.3.

2.2.6 MONITORING OF SECURITY SYSTEMS

The objective of the security system monitoring is to ensure that security systems are in place, functional, and maintained. Security systems for the RCRA Ponds include fencing, secured gates, and warning signs. The DQOs for security system monitoring are presented in Table 1.3 of the *RCRA Pond QAPP* (see Appendix A-1 of this *Post-Closure* Plan). Warning signs will be posted on each vehicle gate and man gate located along the RCRA Pond area fenceline. Additionally, a warning sign will be placed at a spacing of at least one sign per 500 lineal feet of fence between gates. Figure 2-2 shows the location of the RCRA Pond area perimeter fence and required locations for warning signs. The warning signs will state in English "Danger--Unauthorized Personnel Keep Out" per 40 CFR §265.14(c) and will be legible, with a standard size of 10 by 14 inches.

The procedures for the RCRA pond security monitoring are presented in Section 4.6 of the *FSP for RCRA Cap Integrity Monitoring* (included in Appendix A-3 of this *Post-Closure Plan*). The security system monitoring results will be summarized in the annual *RCRA Pond Annual Post-Closure Report*. These procedures consist of the following:

Inspections: Security system inspections will be conducted semi-annually at the RCRA Ponds. These inspections will be conducted to 1) verify that the perimeter fencing around the RCRA Ponds is in place and in good repair, 2) verify that the gates are closed and locked, except when workers are present within the fenced area, and 3) determine whether there is any evidence of unauthorized entry or attempted entry into the fenced RCRA Pond area. Any issues requiring attention or maintenance on the security systems are to be noted on inspection and maintenance forms. Inspection records will be maintained in the Operating Record on-site as described in Section 7.3.

Sampling and/or Measurements: This is a qualitative, rather than quantitative assessment, i.e., no routine sampling, measurement or analysis is performed as part of this monitoring.

Maintenance Activities: Any maintenance shown to be required based on inspection of the security systems will be performed as soon as practicable. Repairs and/or maintenance of the fencing, gates and/or warning signs will commence within seven (7) days unless delayed as specified below. Commencement of repairs and/or maintenance means performing actual field work, in the case of simple or minor maintenance, or, in the case of more complex or larger scale maintenance, initiation of engineering, planning and/or procurement of additional materials to perform the maintenance and/or repairs. Maintenance or repairs will not be performed if frozen soil / snow cover / muddy conditions exist such that cap surface could be damaged as a result of attempting to implement the repair/maintenance activity or if that work is not feasible due to frozen soil conditions (typically between November 15 through April 15) at the area where maintenance/repairs are required. If maintenance or repairs are delayed by surface conditions, any repairs or maintenance will commence within seven (7) days of the presence of acceptable cap surface conditions. In the event commencement of maintenance or repairs must be delayed beyond seven (7) days for cause(s) other than unacceptable surface conditions as described above, FMC will notify EPA within the initial 48 hours of the seven (7) day period. The notification will include a description of the reason(s) for the necessary delay and a schedule for commencing the maintenance and/or repairs. All necessary repairs will be performed by FMC. Documentation of all repairs or maintenance activities will be maintained in the Operating Record on-site as describe in Section 7.3.

2.2.7 Monitoring TMP Enclosures and Perimeter Piping Standpipes

The Temperature Monitoring Points (TMPs) formerly used for temperature monitoring, housed within locking enclosures, and perimeter piping standpipes formerly used for pressure monitoring or contingent gas extraction, with one standpipe per pond equipped with a pressure transducer, are no longer used for their original purpose. Nonetheless, these physical appurtenances remain and will be monitored annually to ensure they remain intact and are secured.

The DQOs for TMP enclosure and standpipe monitoring are presented in Table 1.3 of the *RCRA Pond QAPP* (see Appendix A-1 of this *Post-Closure* Plan).

The procedures for the TMP enclosure and perimeter pipe standpipe monitoring are presented in Section 4.7 of the *FSP for RCRA Cap Integrity Monitoring* (included in Appendix A-3 of this *Post-Closure Plan*). The TMP enclosures and perimeter pipe standpipe(s) monitoring results will be summarized in the annual *RCRA Pond Annual Post-Closure Report*. This monitoring program consists of the following elements:

Inspections: Each of the TMP enclosures and perimeter pipe standpipe(s) associated with each of the RCRA Ponds will be visually inspected annually to determine if:

- The TMP enclosures are intact and the lids are closed and locked; and
- The perimeter pipe standpipe(s) are intact and the end cap is in-place and tight.

Any issues requiring attention or maintenance will be noted on inspection and maintenance forms. Inspection records will be maintained in the Operating Record on-site as described in Section 7.3.

Sampling and/or Measurements: This is a qualitative, rather than quantitative assessment, i.e., no routine sampling, measurement or analysis is performed as part of this monitoring.

Maintenance Activities: Any maintenance shown to be required based on inspection of the TMP enclosures and perimeter pipe standpipe(s) will be performed as soon as practicable. Repairs and/or maintenance of the TMP enclosures and perimeter pipe standpipe(s) will commence within seven (7) days unless delayed as specified below. Commencement of repairs and/or maintenance means performing actual field work, in the case of simple or minor maintenance, or, in the case of more complex or larger scale maintenance, initiation of engineering, planning and/or procurement of additional materials to perform the maintenance and/or repairs. Maintenance or repairs will not be performed if frozen soil / snow cover / muddy conditions exist such that cap surface could be damaged as a result of attempting to implement the repair/maintenance activity or if that work is not feasible due to frozen soil conditions (typically between November 15 through April 15) at the area where maintenance/repairs are required. If maintenance or repairs are delayed by surface conditions, any repairs or maintenance will commence within seven (7) days of the presence of acceptable cap surface conditions. In the event commencement of maintenance or repairs must be delayed beyond seven (7) days for cause(s) other than unacceptable surface conditions as described above, FMC will notify EPA within the initial 48 hours of the seven (7) day period. The notification will include a description of the reason(s) for the necessary delay and a schedule for commencing the maintenance and/or repairs. All necessary repairs will be performed by FMC. Documentation of all repairs or maintenance activities will be maintained in the Operating Record on-site as described in Section 7.3.

SECTION 3.0 RCRA POND GAS MONITORING PROGRAM

<RESERVED>

SECTION 4.0 OPERATION AND MAINTENANCE OF RCRA POND GAS EXTRACTION AND TREATMENT SYSTEMS

<RESERVED>

SECTION 5.0 WASTE MANAGEMENT

5.1 ANTICIPATED WASTE GENERATION AT RCRA PONDS

Based upon experience to date at the closed RCRA ponds, including the operation of gas extraction and treatment systems at certain of the RCRA Ponds, anticipated solid waste streams resulting from post-closure activities at the RCRA Ponds include:

- ET cap drainage water (Ponds 8S, Phase IV ponds, 15S, 16S and 18 Cell A);
- LCDRS water (except Ponds 8S and the Phase IV ponds);
- Debris removed from stormwater ditch maintenance;
- Groundwater monitoring well purge water;
- Used equipment and parts from maintenance activities; and
- Spent PPE.

These anticipated solid waste streams are discussed below.

ET Cap Drainage Water – ET cap drainage water is generated when the collection sump on the ET cap drainage monitoring system is pumped. This water accumulates when precipitation percolates through the ET cap layers to the cap drainage layer (above the HDPE/GCL layer) and is routed through the cap drainage system piping to the cap drainage collection lift station receiver tank (sump). These systems are inspected annually and pumped if significant accumulated drainage water is present. Pumped volumes are recorded. Based upon process knowledge, including the source of the water and historical observation of the ET cap drainage water, this stream is not anticipated to be a RCRA hazardous waste under the 40 CFR Part 261 criteria. A new waste determination may be warranted if field observations indicate unusual conditions, such as unusual color or odors.

LCDRS Water - LCDRS water is generated when the collection sump on the LCDRS is pumped. This water accumulates when water or wastes pass through the leachate collection piping at double-lined ponds and to the LCDRS collection sump. These systems are inspected

on a progressive, step-wise schedule per the requirements of 40 CFR § 265.226(b)(2) and pumped if accumulated drainage water is present. Pumped volumes are recorded. Based upon process knowledge, including LCDRS water analysis and historical observation, this stream has historically not been a RCRA hazardous waste per 40 CFR Part 261. While accumulated leachate is sampled and analyzed for pH and TCLP metals periodically, additionally, if field observations indicate unusual conditions, such as unusual color or odors associated with the LCDRS water, or if the volume pumped during the prior month or quarter (depending on monitoring schedule) is greater than 20-percent higher than the average from the previous 2 calendar years volume pumped during the same month or quarter for the same LCDRS manhole, the LCDRS water will be sampled and analyzed for pH and TCLP metals prior to pumping to re-confirm (or modify) the previous waste determination.

Debris Removed from Stormwater Ditch Maintenance – Stormwater ditch debris is generated when stormwater diversion ditches are cleaned. Based upon process knowledge, including the historical observation of this debris, this stream is not anticipated to be a RCRA hazardous waste per 40 CFR Part 261. A new waste determination may be warranted if field observations indicate unusual conditions, such as unidentified materials (e.g., materials other than native soil, sand/gravel, slag and/or tumbleweeds).

Groundwater Monitoring Well Purge Water – During sampling of RCRA monitoring wells, the wells are purged prior to sampling. Based upon process knowledge, including over 20 years of groundwater well analyses for wells at the FMC facility, this stream is not anticipated to be a RCRA hazardous waste per 40 CFR Part 261. A new waste determination may be warranted if field observations indicate unusual conditions, such as unusual color or odors.

Used Equipment and Parts from Maintenance Activities – Used equipment and parts are generated during routine maintenance activities, primarily on monitoring instrumentation. Based upon process knowledge, including the historical observation of these parts/equipment, this stream is not anticipated to be a RCRA hazardous waste per 40 CFR Part 261. A new waste determination may be warranted if maintenance activities involve the removal/generation of used mercury switches, printed circuit boards, etc. These items will usually be recycled.

Spent PPE – During monitoring, sampling, or maintenance activities, spent PPE may be generated. Based upon process knowledge, including the historical observation of past-generated PPE and the fact that listed or characteristic wastes are not encountered, spent PPE is not anticipated to be a RCRA hazardous waste per 40 CFR Part 261.

5.2 WASTE MANAGEMENT

FMC is subject to all applicable RCRA requirements including 40 CFR §262.11 requirements for waste determination. All waste determination records will be documented as part of the Operating Record per the requirements of 40 CFR § 262.40(c). In accordance with 40 CFR 265.73(b)(3), records and results of waste analysis, waste determinations, and any trial tests performed will be recorded and maintained in the facility's Operating Record. Wastes will be managed in accordance with the applicable RCRA regulatory requirements.

SECTION 6.0 POND 16S CAP ROAD MONITORING AND MAINTENANCE

Pond 16S cap road monitoring and maintenance will be performed as long as the pond cap road remains on the cap surface. FMC will develop a separate work plan should it seek to remove the Pond 16S cap road in the future and will submit the work plan to EPA for review and approval prior to commencing any work to remove the road. FMC will remove the road in accordance with the work plan as approved or modified by EPA.

6.1 POND CAP ROAD CULVERT MONITORING

There are four 8-inch culverts incorporated into the pond cap road. These culverts are designed to drain precipitation runoff from within the pond cap road perimeter to outside the perimeter. Each culvert has a flow diffuser to dissipate flow velocity and to disperse flow across a larger area of the cap. It is important that the culverts and flow diffusers work as designed in order to prevent cap surface erosion. Therefore, semi-annual visual inspections of all four pond cap road culverts will be performed and recorded on an inspection form. This visual inspection will also be performed and recorded within 48 hours after each 25-year, 24-hour storm event defined as 2.1 inches (or more) of precipitation within a 24-hour period (NOAA, 1973) as reported for the Pocatello airport weather station. A visual inspection will also be performed and recorded within 48 hours of a rain on snow or frozen soil event of 1.0 inch (or more) of precipitation within a 24-hour period as reported for the Pocatello airport weather station during the period November 15 through April 15. The culvert monitoring procedure is as follows:

Inspections: Each of the four pond cap road culverts will be inspected. The inspection will encompass the culvert inlet, outlet, and diffuser. The following will be documented if observed:

- Any blockage of the inlet, outlet or diffuser as evidenced by any of the following:
  - Ponding of precipitation runoff at the culvert inlet,

- Trash, soil or vegetation blockages,
- Ice blockages,
- Uneven discharge from the diffuser, or
- Any erosion patterns around the inlet, over the roadway, or at the diffuser discharge.

- Any damage to the culvert or diffuser as evidenced by any of the following:
  - Crushed, broken or otherwise damaged inlet, outlet, or diffuser; or
  - Crushed culvert under the roadway as evidenced by a collapsed road surface over the culvert.

Maintenance Activities: Any observed blockage or damage to pond cap road culverts will be documented on the inspection form and corrected as soon as practicable. In the event final corrective action must be delayed, interim measures will be evaluated and implemented, as appropriate. For example, if runoff is ponding at a culvert inlet as result of an ice blockage that cannot be readily removed, a temporary pumping arrangement will be considered to pump accumulated precipitation off the cap surface. Any observed damage to the cap surface, e.g., erosion, will be managed as prescribed in Section 2.0 of this plan. All corrective actions will be documented on an inspection and maintenance form. Inspection and maintenance records will be maintained in the Operating Record on-site as described in Section 7.3.

6.2 PRECIPITATION ACCUMULATION MONITORING

It is important that precipitation runoff not be allowed to pond anywhere on the Pond 16S cap. Therefore, semi-annual visual inspections of the cap surface will be performed and recorded on an inspection form. This visual inspection will also be performed and recorded within 48 hours after each 25-year, 24-hour storm event defined as 2.1 inches (or more) of precipitation within a 24-hour period (NOAA, 1973) as reported for the Pocatello airport weather station. A visual inspection will also be performed and recorded within 48 hours of a rain on snow or frozen soil event of 1.0 inch (or more) of precipitation within a 24-hour period as reported for the Pocatello airport weather station

during the period November 15 through April 15. The precipitation accumulation monitoring procedure is as follows:

Inspection: The entire Pond 16S cap surface will be visually inspected. The inspection will encompass the following features, at a minimum:

- Culvert inlets, outlets, and diffusers;
- All areas adjacent to the pond cap road;
- All areas adjacent to GETS equipment (e.g., piping supports), and
- The perimeter of the cap.

The following will be documented if observed:

- Any ponding of precipitation runoff at the culvert inlet, outlet, and diffusers;
- Any ponding of precipitation runoff along the pond cap road;
- Any ponding of precipitation runoff along GETS equipment on the cap;
- Any ponding of precipitation around the perimeter of the cap; or
- Any discoloration of soil or vegetation, prolific vegetation growth, or other evidence of frequent standing water.

Maintenance Activities: Any observed ponded water will be documented on the inspection form and corrected as soon as practicable. In the event final corrective action must be delayed, interim measures will be evaluated and implemented, as appropriate. For example, if runoff is ponding at a culvert inlet as result of an ice blockage that cannot be readily removed, a temporary pumping arrangement will be considered to pump accumulated precipitation off the cap surface. Any observed routine standing water as result of damage to the cap surface, e.g., erosion, low spots, etc., will be managed as prescribed in Section 2.0 of this plan. All corrective actions will be documented on an inspection and maintenance form. Inspection and maintenance records will be maintained in the Operating Record on-site as described in Section 7.3.

SECTION 7.0 RECORDKEEPING AND REPORTING

A copy of this *Post-Closure Plan* will be maintained at the FMC facility and will be made available to EPA upon request. In addition to the annual RCRA Pond Reports described in Section 7.2, FMC will report to EPA and other entities within the applicable timeframes, as required by this post-closure plan and/or applicable law, any environmental releases, spills, groundwater monitoring data, emergency incidents, or other situations potentially threatening to human health or the environment.

7.1 INSPECTION AND MAINTENANCE RECORDS

All inspection, maintenance and other records generated as result of activities performed under this plan shall be maintained on-site. These records will be maintained per the requirements of 40 CFR §§ 265.73, 265.74 and 265.77.

7.2 ANNUAL RCRA POND REPORTS

7.2.1 RCRA POND POST-CLOSURE REPORT

A *RCRA Pond Annual Post-Closure Report* will be prepared annually. These reports will cover each calendar year and will be submitted to the EPA Region 10 by May 1st of the following year. Two (2) hard copies and one (1) electronic copy of the annual post-closure report will be submitted to the RCRA Project Manager, Office of Air, Waste and Toxics, EPA Region 10, 1200 Sixth Avenue, Suite 900, Seattle, WA 98101. The report will include a summary of the following:

- Inspection and maintenance forms
- Surface vegetation monitoring
- Settlement monitoring
- Survey benchmark monitoring
- Topsoil depth monitoring
- Rodent/insect infestation monitoring

- ET cap drainage monitoring
- LCDRS monitoring and pumping summary
- Stormwater diversion and drainage system monitoring
- Security system inspection results
- TMP enclosure and perimeter piping standpipe inspection results
- Pond 16S cap road monitoring
- Maintenance and repair activities
- A summary of any problems encountered and actions taken to address them

7.2.2 RCRA Interim Status GW Monitoring Assessment Report

An annual *RCRA Interim Status Groundwater Assessment Report* will be prepared to present an evaluation of the RCRA groundwater quality monitoring data collected at the facility during each calendar year. This report will be prepared in accordance with the interim status requirements of RCRA pursuant to 40 CFR Part 265 Subpart F and will be submitted to EPA Region 10 by March 1st of the following year. In addition to the copy required to be submitted to the EPA Regional Administrator, two (2) hard copies and one (1) electronic copy of the annual groundwater assessment report will be submitted to the RCRA Project Manager, Office of Air, Waste and Toxics, EPA Region 10, 1200 Sixth Avenue, Suite 900, Seattle, WA 98101. The annual *RCRA Interim Status Groundwater Assessment Report* will include:

- Evaluation of groundwater flow direction and water elevation
- Evaluation of the groundwater data including identification of any significant difference from background and results of statistical tests
- Status update for the waste management units (WMUs)
- Groundwater monitoring data and data validation and usability reports for the current year (via electronic media)

7.3 RECORDKEEPING

Post-closure plans and all associated monitoring data, inspection records, and certifications are part of the facility operating record. The operating records are located in the FMC files on-site.

Except for inspection records, which must be kept for 3 years, or longer as may be required, the information contained in the operating record will be maintained at the facility until the post-closure care period has been completed.

7.4 MONITORING SCHEDULE NOTICES

FMC will provide 10 days prior notice to EPA for the quarterly RCRA groundwater monitoring events. For the balance of the monitoring activities, upon notice from EPA to observe post-closure monitoring, FMC will work with EPA to schedule specific monitoring activities as requested by EPA.

SECTION 8.0 REFERENCES

FMC Idaho, LLC (FMC), June 2009. Groundwater Current Conditions Report for the FMC Plant Operable Unit, June 2009 Final.

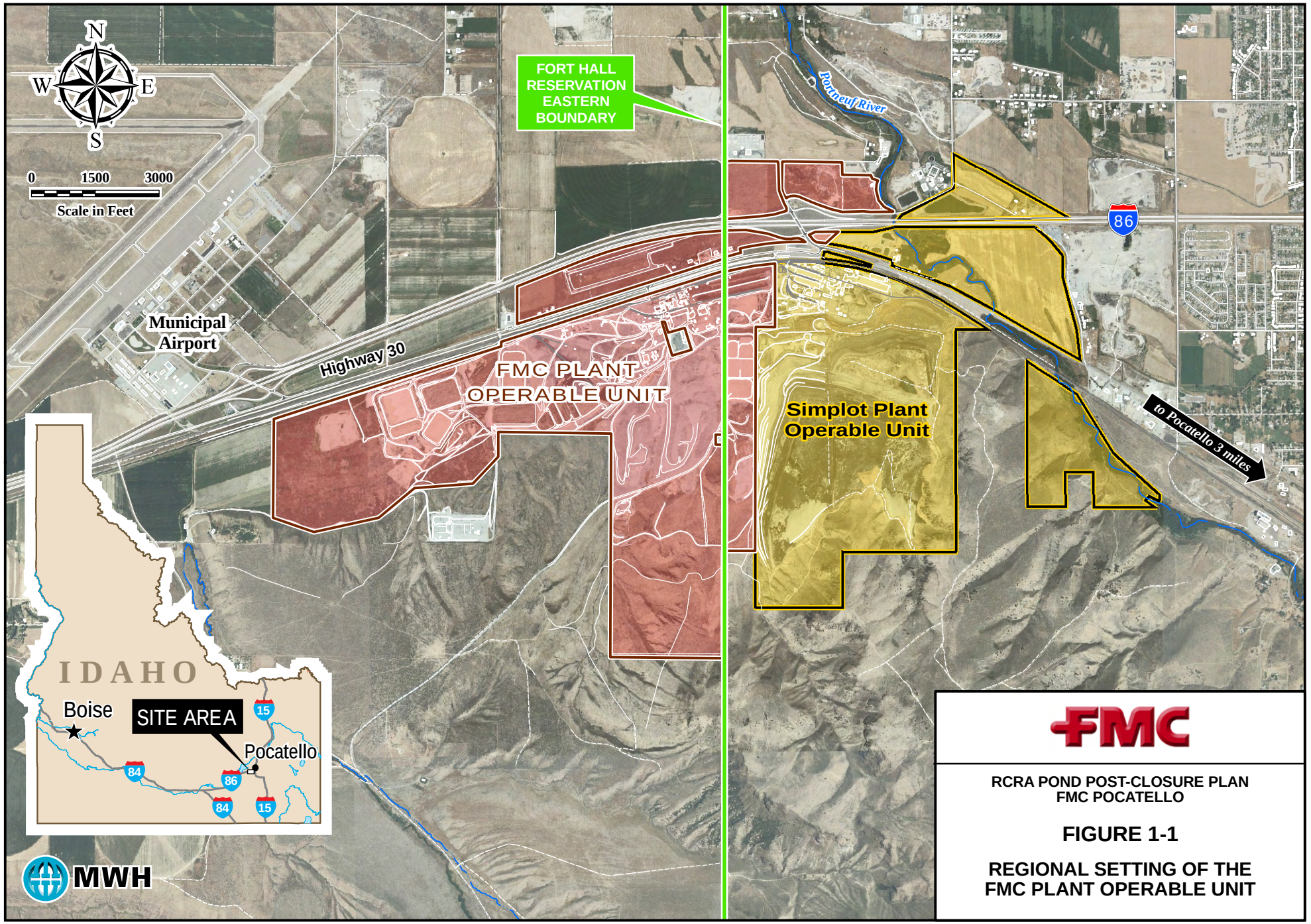
FMC, 2010. "RCRA Facility-Wide Contingency Plan," FMC Idaho, LLC, Pocatello, Idaho, June 16, 2010.

MWH, 2008. "Pond 16S Monitoring and Reporting Plan," FMC Idaho, LLC, Pocatello, Idaho, February, 2008.

National Oceanic and Atmospheric Administration (NOAA), 1973. NOAA Atlas 2 Precipitation-Frequency Atlas of the Western United States, Volume V – Idaho.

United States Department of Agriculture (USDA), January 2008. Guidelines for Determining Stand Establishment on Pasture, Range and Conservation Seedings. Natural Resource Conservation Service, TN Plant Materials No. 12.

FILE *Fig 1-01_Regional Setting_waerial_postclosure.mxd* *16Sep2010*



WMU #9
POND 9E

WMU #10
(POND 16S)

FORMER
POND 18
CELL B
(clean-closed)

WMU #15
POND 18 - CELL A

WMU #14
POND 17

WMU #3
POND 15S

WMU #8
PHASE IV PONDS

WMU #11
POND
8E

WMU #7
POND
8S

126 127 128 124 147 148 177 149 154 178 171 172 173 174 180 113 166 115 114 168 131 104 155 156 157 183 158 167 165

Legend

Property Boundary

RCRA groundwater monitoring well

LOCATION MAP

Map Area

N W E S

0 250 500
Feet

Date of Aerial Photography
November 4, 2007

MWH

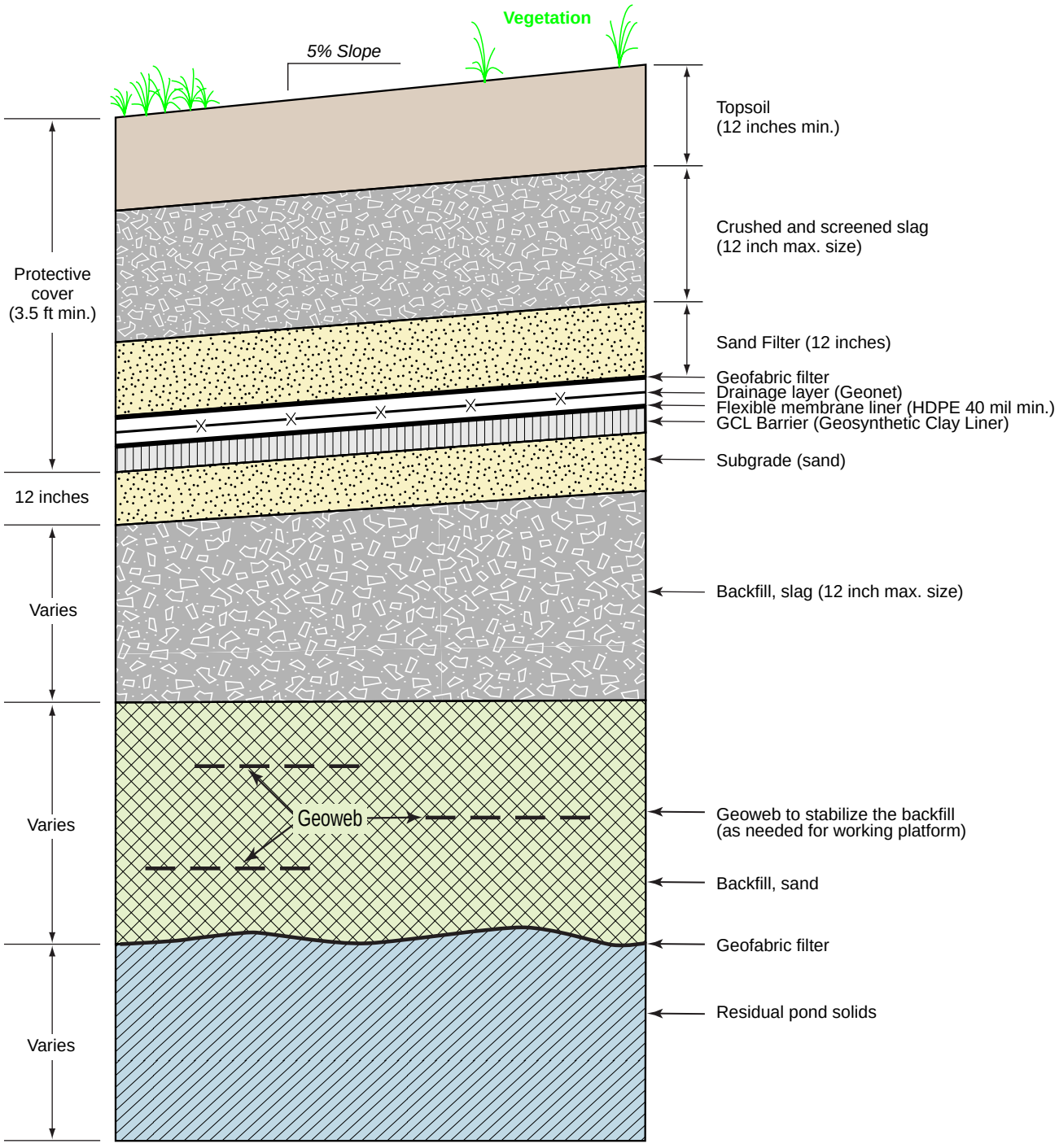
FMC

RCRA POND POST-CLOSURE PLAN
FMC POCATELLO

FIGURE 1-2

RCRA POND LOCATIONS AT FMC

FILE *Fig 1-02_RCRA Pond Locations at FMC_postclosure.mxd 16Sep2010*



NOT TO SCALE

FILE *Fig 1-03 FMC_Typ Section of RCRA Engineered Cap_8E_9E_17_postclosure.ai 16Sep2010*

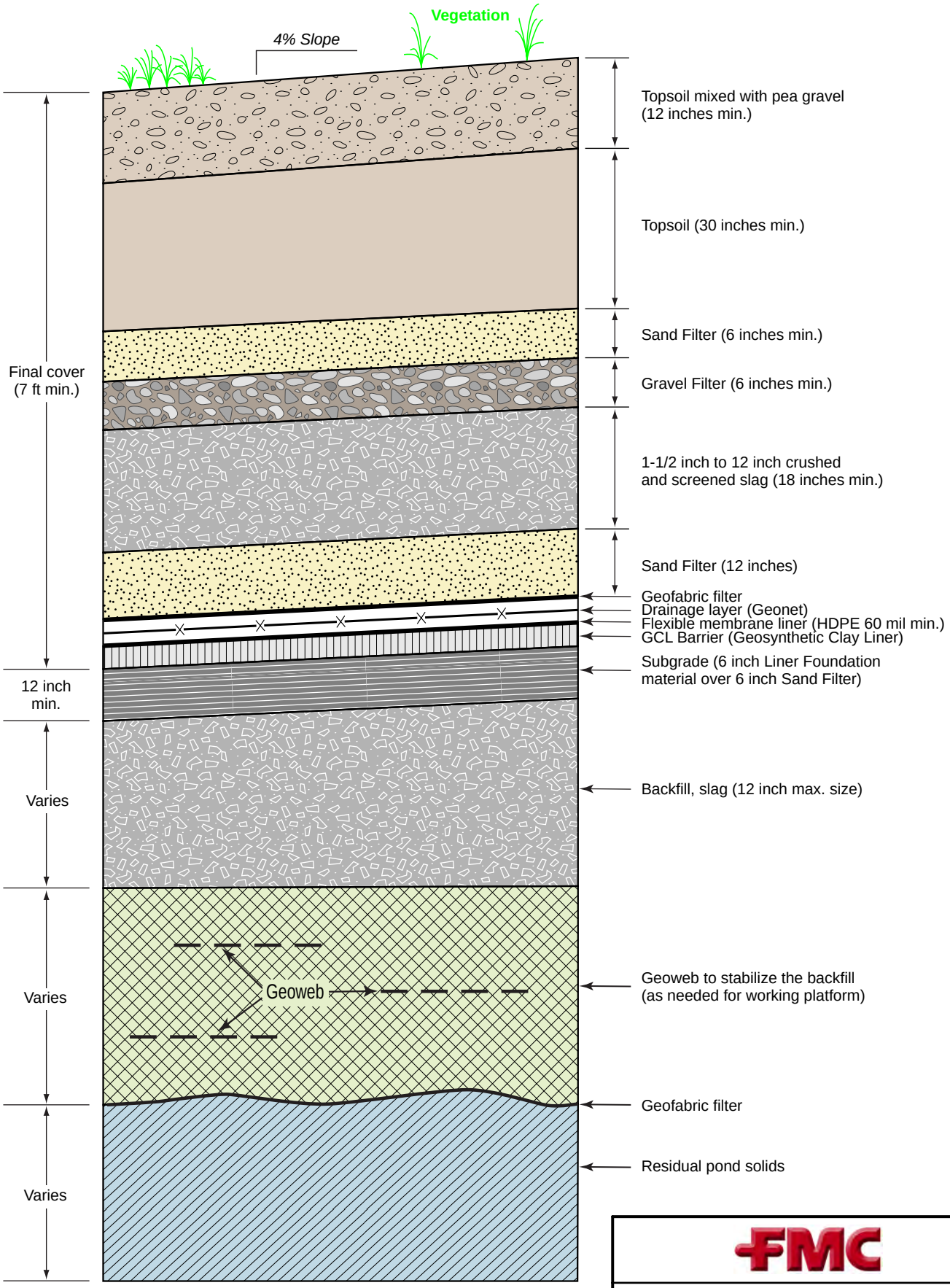
MWH

FMC

RCRA POND POST-CLOSURE PLAN
FMC POCATELLO

FIGURE 1-3

TYPICAL SECTION OF RCRA ENGINEERED CAP FOR PONDS 8E, 9E, AND 17



NOT TO SCALE

FILE *Fig 1-04 FMC_Typ Section of RCRA Double Cap_postclosure.ai 16Sep2010*

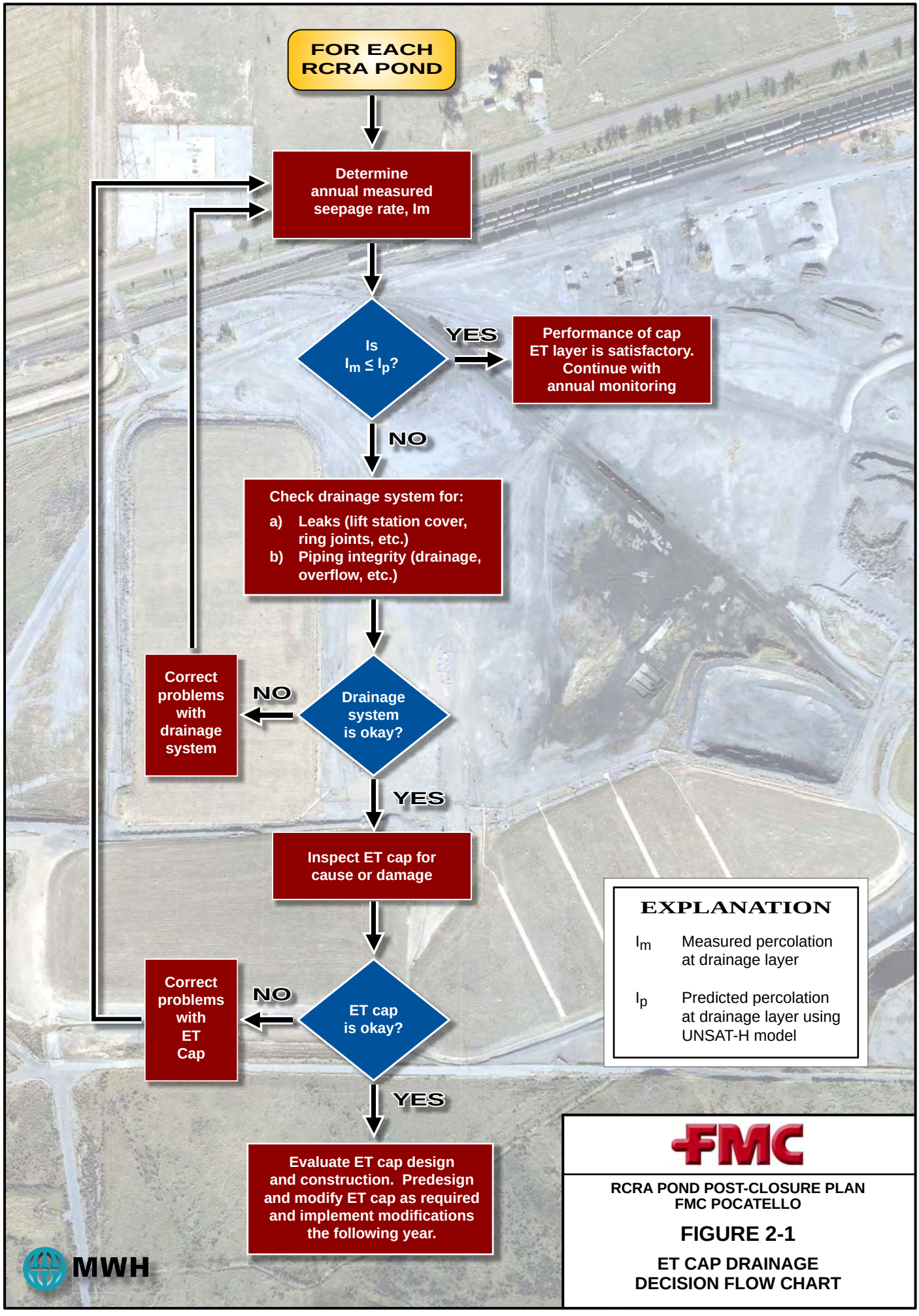
MWH

FMC

RCRA POND POST-CLOSURE PLAN
FMC POCATELLO

FIGURE 1-4

TYPICAL SECTION OF RCRA DOUBLE CAP SYSTEM FOR PONDS 8S, PHASE IV, 15S, 16S, AND 18 CELL A


FOR EACH RCRA POND
Determine annual measured seepage rate, Im
Is Im ≤ Ip?
YES
Performance of cap ET layer is satisfactory. Continue with annual monitoring
NO
Check drainage system for:
a) Leaks (lift station cover, ring joints, etc.)
b) Piping integrity (drainage, overflow, etc.)
Drainage system is okay?
NO
Correct problems with drainage system
YES
Inspect ET cap for cause or damage
ET cap is okay?
NO
Correct problems with ET Cap
YES
Evaluate ET cap design and construction. Predesign and modify ET cap as required and implement modifications the following year.
EXPLANATION
Im Measured percolation at drainage layer
Ip Predicted percolation at drainage layer using UNSAT-H model
MWH
FMC
RCRA POND POST-CLOSURE PLAN
FMC POCATELLO
FIGURE 2-1
ET CAP DRAINAGE DECISION FLOW CHART
FILE Fig 2-01_ET Cap Drainage Decision Flow Chart_postclosure.ai 16Jun2011

Legend

- FMC property boundary
- RCRA pond area boundary fence
- RCRA warning sign
- RCRA vehicle gate with sign
- RCRA man gate with sign

State Highway 30

POND 16S

POND 9E

POND 8S

POND 8E

POND 15S

PHASE IV PONDS

POND 18

POND 17

N

W E

S

0 200 400

Feet

MWH

FILE *Fig 2-02_RCRA Pond Area Perimeter Fence_postclosure.mxd 16Sep2010*

FMC

RCRA PONDS POST CLOSURE PLAN

FIGURE 2-2

RCRA POND AREA PERIMETER FENCE AND WARNING SIGN LOCATIONS

Table 1.1 RCRA Ponds Comparison Summary
FMC Plant Site – Pocatello, ID

Pond Number	Description of Wastes Received	Pond Size (acres) Final Waste Inventory (acre-feet)	Year Put Into Service	Year Last Received Waste	Date Closure Construction Completed & Certification Date	RCRA Waste Management Unit #	Cap Design	Post Closure Monitoring Systems Monitored per Section 2.0 of Post Closure Plan
8E	Primarily NOSAP (lime-treated) precipitator slurry and residual non-lime treated precipitator slurry / phossy solids	4.1 acres 27 acre-feet	1984	1997	November 2004 January 2005	11	RCRA engineered cap See Figure 1-3	• LCDRS • Groundwater monitoring wells • Settlement monuments
9E	Precipitator slurry	12.9 acres 17 acre-feet	1986	1994	December 2000 January 2001	9	RCRA engineered cap See Figure 1-3	• LCDRS • Groundwater monitoring wells • Settlement monuments
8S	Phossy water and phossy solids	3.2 acres 44 acre-feet	1970	1981	October 1999 December 1999	7	RCRA double cap See Figure 1-4	• Groundwater monitoring wells • Settlement monuments • Topsoil thickness gauges • ET cap drainage collection and measurement
Phase IV	Phossy water and phossy solids	8.9 acres 43 acre-feet	1980	1998	November 2004 January 2005	8	RCRA double cap See Figure 1-4	• Groundwater monitoring wells • Settlement monuments • Topsoil thickness gauges • ET cap drainage collection and measurement
15S	Phossy water and phossy solids	9.4 acres 140 acre-feet	1982	1993	November 2004 January 2005	3	RCRA double cap See Figure 1-4	• LCDRS • Groundwater monitoring wells • Settlement monuments • Topsoil thickness gauges • ET cap drainage collection and measurement
16S	Phossy water and phossy solids, precipitator slurry (both NOSAP and non-NOSAP)	10.2 acres 140 acre-feet	1993	1999	November 2004 January 2005	10	RCRA double cap See Figure 1-4	• LCDRS • Groundwater monitoring wells • Settlement monuments • Topsoil thickness gauges • ET cap drainage collection and measurement
17	RCRA Consent Decree on-specification NOSAP slurry only	9.0 acres 59 acre-feet	1998	2001	November 2005 December 2005	14	RCRA engineered cap See Figure 1-3	• LCDRS • Groundwater monitoring wells • Settlement monuments
18 Cell A	Phossy water and phossy solids, minor RCRA Consent Decree off-specification NOSAP slurry	3.8 acres 25 acre-feet	1998	2001	November 2005 December 2005	15	RCRA double cap See Figure 1-4	• LCDRS • Groundwater monitoring wells • Settlement monuments • Topsoil thickness gauges • ET cap drainage collection and measurement

NOSAP = Non-Hazardous Slurry Assurance Project
LCDRS = Leachate collection, detection and removal system
ET = Evapotranspiration
RCRA = Resource Conservation and Recovery Act

TABLE 2.1

RCRA POND POST-CLOSURE MONITORING ACTIVITY SUMMARY

Post-closure Monitoring/Inspection Activity[1]	Record/Report	Activity Frequency	Reporting Frequency	Action Trigger(s)	Action(s)	Post-Closure Plan (PCP) Reference
Routine Inspections						
Cap surface vegetation	Inspection & maintenance forms	Annually	Annually	33% or more of transect plots less than 0.5 plants per sq ft.	Reseed in the fall.	PCP: Section 2.2.1.1
Settlement monuments	Inspection & maintenance forms	Annually[2]	Annually	Damage to settlement monuments.	Maintenance action as soon as practicable[3].	PCP: Section 2.2.1.2
Topsoil Depth Indicators	Inspection & maintenance forms	Semiannually	Annually	Damage to topsoil depth indicators.	Maintenance action as soon as practicable[3].	PCP: Section 2.2.1.3
Rodent/Insect Infestation	Inspection & maintenance forms	Semiannually	Annually	Excessive rodent or insect activity.	Repair damage as soon as practicable[4].	PCP: Section 2.2.1.4
ET cap drainage lids and sumps	Inspection & maintenance forms	Annually	Annually	Damage to manhole cover or sumps.	Maintenance action as soon as practicable[4].	PCP: Section 2.2.1.5
LCDRS lids and sumps	Inspection & maintenance forms	Monthly [5]	Annually	Damage to manhole cover or sumps.	Maintenance action as soon as practicable[4].	PCP: Section 2.2.2
Groundwater monitoring wells	Inspection & maintenance forms	Semiannually	Annually	Damage to well head or cover.	Maintenance action as soon as practicable[3].	PCP: Section 2.2.3
Stormwater run-off cap erosion	Inspection & maintenance forms	Semiannually	Annually	Excessive cap erosion or debris/sediment buildup.	Maintenance action as soon as practicable[4].	PCP: Section 2.2.4
Surveyor benchmarks	Inspection & maintenance forms	Annually	Annually	Damage to surveyor benchmarks.	Maintenance action as soon as practicable[3].	PCP: Section 2.2.5
Security systems	Inspection & maintenance forms	Semiannually	Annually	Damaged or missing security components.	Maintenance action as soon as practicable[4].	PCP: Section 2.2.6
TMP Enclosures and Standpipes	Inspection & maintenance forms	Annually	Annually	Damage to enclosure or standpipe.	Maintenance action as soon as practicable[4].	PCP: Section 2.2.7
25-year, 24-hour Storm or Rain-on-Snow / Frozen Soil Event Inspections						
Stormwater run-off cap erosion	Inspection & maintenance forms	w/in 48-hours	Annually	Erosion on cap surface or debris/sediment buildup.	Maintenance action as soon as practicable[4].	PCP: Section 2.2.4
High Wind Event Inspections						
Topsoil Depth Indicators	Inspection & maintenance forms	w/in 48-hours[6]	Annually	5-inches below installed thickness at 50 percent of indicators.	Evaluate topsoil on cap. If warranted, add topsoil[4] and reseed in the fall.	PCP: Section 2.2.1.3
Stormwater run-off cap erosion	Inspection & maintenance forms	w/in 48-hours[6]	Annually	Erosion on cap surface or debris/sediment buildup.	Maintenance action as soon as practicable[4].	PCP: Section 2.2.4
Seismic Event						
Settlement	Survey report	w/in 48-hours	Annually	Exceeds acceptable rates.	Engineering evaluation/repair.	PCP: Section 2.2.1.2
Sampling and Measurements						
Vegetation survey	Inspection & maintenance forms	Annually	Annually	33% or more of transect plots less than 0.5 plants per sq ft.	Reseed in the fall.	PCP: Section 2.2.1.1
Settlement	Survey report	Annually[2]	Annually	Exceeds acceptable rates.	Engineering evaluation/repair.	PCP: Section 2.2.1.2
Topsoil depth	Inspection & maintenance forms	Annually	Annually	5-inches below installed thickness at 50 percent of indicators.	Evaluate topsoil on cap. If warranted, add topsoil[4] and reseed in the fall.	PCP: Section 2.2.1.3
ET cap drainage volume	Inspection & maintenance forms	Annually	Annually	Water accumulation above predicted maximum annual percolation rate.	Evaluate drainage collection system and repair as necessary[4]. If collection system functioning properly, evaluate ET cap seepage rate.	PCP: Section 2.2.1.5
LCDRS pumping volume	Inspection & maintenance forms	Monthly [5]	Annually	Leachate accumulation above the invert of inlet pipe to the sump.	Pump leachate below pipe invert, measure and record leachate volume.	PCP: Section 2.2.2
Groundwater well sampling	Annual GW Assessment Report	Quarterly	Annually	Annual compilation of GW data.	Perform trend analysis.	PCP: Section 2.2.3

Notes: [1] The Pond 16S Cap Road monitoring and maintenance activities and requirements are contained in Section 6.0 of the Post-Closure Plan.

[2] Settlement monitoring will be performed annually during the post-closure period or until the total cumulative movements for the previous five years are less than the limits specified in Section 2.2.1.2 after which settlement monitoring will performed every 5 years. Settlement monitoring will also be performed if visible subsidence is noted during semiannual run-on and/or run-off erosion monitoring (per Section 2.2.4) or other monitoring and/or maintenance and after local seismic events (per Section 2.2.1.2).

[3] Any maintenance required based on the inspection shall be performed as soon as practicable and within a timeframe that will not delay the next scheduled monitoring event.

[4] Repairs / maintenance will commence within 7 days except if frozen soil / snow cover / muddy conditions exist such that cap surface could be damaged in order to implement the repair/maintenance activity or are not feasible due to frozen soil conditions (typically between November 15 through April 15). If maintenance / repairs are delayed by surface conditions any repairs or maintenance will commence within 7 days of the presence of acceptable cap surface conditions. In the event maintenance or repairs must be delayed beyond commencement within 7 days for cause(s) other than frozen soil / snow cover / muddy conditions, FMC will notify EPA within 48 hours of the observation of a condition for which the maintenance/repair will be delayed.

[5] On a progressive step-wise schedule per 40 CFR § 265.226(b)(2).

[6] A triggering wind event would likely occur in March when the soil is still frozen and snow accumulation may prevent access to all of the topsoil thickness gauges. In the event some or all of the topsoil thickness gauges are not accessible, the high wind event topsoil depth monitoring will be performed within 48 hours of meteorological conditions that would make all of the gauges accessible.

Table 2.2 Seed Mix for Reseeding RCRA Pond Caps

Seed	Lb/acre	% of Mix	Min. Pure/Germ
Indian Ricegrass	4	8.6	98/85
Rubber Rabbitbrush	4	8.6	10/65
Covar Sheeps Fescue	10	21.5	98/85
Great Basin Sagebrush	3	6.5	25/50
Sand Dropseed	2	4.3	90/75
Needle and Thread Grass	1	2.1	60/50
Lewis Blue Flax	1	2.1	98/70
Desert Globemallow	0.5	1.1	98/50
Sulfur Buckwheat	0.5	1.1	25/25
California Poppy	0.5	1.1	98/80
Wheat Hybrid	20	43.0	90/80
Totals	46.5	100	